

several billion doses short of the necessary amount. Health authorities worldwide face two main strategies to afford a reasonable chance for utilizing vaccines during a pandemic—pre-emptive stockpiling of vaccines against circulating avian H5N1 strains, or signing an advanced purchase agreement for vaccines with the vaccine manufacturers. Both options are costly and are associated with many unknown influencing factors. We present a mathematical model for the comparison of these two vaccine purchase strategies (advanced purchase agreement vs. pre-pandemic avian H5N1 vaccine stockpiling) in economical terms.

Methods: We modeled each strategy's cost, impact on reduction in morbidity and mortality compared with a non-intervention, base-case scenario, adjusted the benefits to an annual probability of a pandemic as low as 1%, and calculated the relevant cost-benefit ratio. The impact of vaccination on disease spread was assessed according to a systematic review of published dynamic models.

Results: The model showed advanced purchase agreement to be cost saving, with a cost-benefit ratio of 1.81–3.65, depending on the assumed R0. The ratio proved relatively robust in extensive sensitivity analyses. Stockpiling H5N1 vaccine was not cost-saving, with a cost:benefit ratio of 0.25.

Conclusions: Current signing of an advance purchase agreement for future (pandemic phase) vaccine supply is a cost-saving strategy and should be pursued.

Keywords: avian flu; cost-benefit analysis; influenza; pandemic; vaccine

Prehosp Disast Med 2009;24(2):s63–s64

Do Emergency Medicine Department Healthcare Professionals Feel Ready to Face Pandemics?

Efstratios Photiou

Pronto Soccorso, Ospedale Sant'Antonio, Padova, Italy

Introduction: Much is said about new epidemics for the following reasons: globalization, re-presentation of “past” diseases, etc. An avian influenza pandemic is considered inevitable: 90–100% of infected birds die; as of 16 December 2008, 391 humans were infected (247 deaths; 63.17%). New vaccines with unknown protection rates are prepared. It is predicted that a small percentage of the world's population can be vaccinated. Planning for a pandemic is paramount. Emergency medicine departments (EMDs) can be threatened by infectious diseases.

Objectives: To assess how risk perception may affect attendance pattern/willingness to work during pandemics; to suggest means reducing absentee impact through meeting healthcare professionals' (HCP) needs/perceptions. Healthcare providers were asked to suggest methods to better cope with pandemics and assess how they feel about information/training and protective means during pandemics.

Methods: An anonymous questionnaire was distributed to EMD personnel (physicians, registered nurses, ward clerks) who would be called to respond during epidemics/pandemics.

Results: The overall response rate was 68.9% (110 participants). The suggestions offered to improve work during pandemics were: 43% had no suggestions; 46% said courses/drills, specific protocols, adequate protective means; 8% mentioned epidemics managed by dedicated personnel/facil-

ities; 2% said “pay-for-risk”; and 1% mentioned personnel enhancement during epidemics. The results for the means of gaining information include: 34%, specific epidemics' management training; 29%, generic workshops/courses; 14%, board-written information; 14%, participation in risk assessment prior-to-crisis; 5%, up-to-date information through displays/screens; 3%, Web-acquired information; and 1%, other. The EMDs' protective means of safety results were: 21%, safe; 26%, slightly safe; 27%, don't know, 26%, unsafe.

Conclusions: A lack of concern about pandemics (to build-up); active participation in training/information acquisition helps people feel that they are “part of the system”; timely information, protocols, periodic training/drills, adequate means of protection, and planning beforehand are paramount.

Keywords: avian flu; emergency medicine department; healthcare professionals; pandemic; readiness

Prehosp Disast Med 2009;24(2):s64

“Recovery”: The Forgotten Stage of Pandemic Planning

Frank Archer; Caroline Spencer

Monash University, Department of Community Emergency Health and Paramedic Practice, Frankston, Victoria Australia

Introduction: In recent years, pandemic planning has attracted much energy and international interest. There are international peak agency plans, national plans, regional plans, and organizational operational plans. These plans may be holistic or focus on specific needs and interests, for instance, general practice perspectives, business recovery, etc. As a component in preparing for the delivery of a unit on disaster recovery in a Graduate Certificate in Emergency Preparedness and Disaster Health program, a range of these plans were reviewed. The outcome is surprising and unsettling.

Methods: A review of selected international pandemic plans, including those of the World Health Organization (WHO), New Zealand, and Australian State and Territory was performed and the “recovery” or “post-pandemic period” component was identified.

Results: The review is difficult to quantify because of the different nature and structure of the various plans. Compared to the preparedness and response phases, little content relating to “recovery” exists in the plans reviewed. The WHO Global Influenza Preparedness Plan on the post-pandemic period refers back to the pre-pandemic phase with no specific consideration of recovery issues. The New Zealand Pandemic Plan only includes three pages of a 196-page document on “recovery”, but includes a framework and refers to business continuity.

The Victorian state plan defines recovery as—“recovery commences when the first response measures are taken. The plan aims to provide the necessary support and stimulus to help the Victorian community return to normal living as quickly as possible”. Victorian recovery arrangements include reference to: (1) material and financial assistance; (2) psychosocial and community recovery; (3) economic recovery; and (4) ongoing recovery.

Conclusions: The basis of this apparent deficiency in pandemic planning remains unclear. Hopefully, as these plans