It was concluded that public health officers, participation of the family leaders and outsourcing from other media have a role in preventive behavior use among people in the community. Emphasizing supervision and support will be effective in prevention and control of DHF.

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68.021

The Rapid Dispensing and Delivery of Oseltamivir API during Influenza Pandemic Phase: An Exercise Experience in Taiwan

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Background: Less storage space and longer shelf life have made Oseltamivir API a good choice for stockpiling as countermeasure against influenza pandemic. However dispensing before use is needed. To examine the efficiency of the processes from activation, packaging, dispensing to distribution, we conducted functional exercise and drill on August 2006 and November 2007 respectively.

Methods: The central government establishes the stockpiles of antivirals. During the pandemic, the Taiwan association of clinical pharmacy (TACP) together with 105 dispensing sites nationwide will dispense and distribute API. The scenario for functional exercise assumed 4 clusters of A/H5N1 infection were detected and 400,000 doses of antivirals dispensed at 5 sites were indicated. We examined the time needed for each processes. Drill was conducted to test the accuracy and efficiency of dispensing and management through Material Information System (MIS) for 50 sites randomly selected. Dispensing skill and time was evaluated with a checklist by committee. The performance of operating MIS was recorded automatically by the system

Results: TACP needed 6 to 8 hours to mobilized the personnel and activate the dispensing operation on receiving order. Simultaneously, the central government needed 11 hours to transport the antiviral to GMP factory for packaging and then to dispensing sites. All the dispensing sites completed the dispensing within 6 hours and antiviral was sent to designated place within 3 hours. The dispensing skill was evaluated at 5 dispensing sites with 100% accuracy and mean dispensing time was 60 minutes. Seventy-six percent (38/50) of the hospitals feedback the information through MIS, and 79% of them completed in time.

Conclusion: The mechanism in place can distribute the antiviral to designated place within 24 hours which will be in time for cases to use. Most of the units can use the MIS successfully indicates that this system effectively facilitate the management, though more training may be needed.

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68.022

Pandemic Influenza Preparedness: is the Community Really Prepared?

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Background: The latest outbreaks of avian influenza A (H5N1) have scientists concerned that an influenza pandemic is imminent. Governments globally have prepared protocols for rapid response and containment of infection that aim to stop or at least limit spread of pandemic influenza (PI). Community engagement in PI preparedness has been minimal. The aim of this study was to assess community awareness of pandemic influenza (PI) and acceptance by the community of government strategies to control the spread of infection.

Methods: A cross-sectional study was conducted by Computer Aided Telephone Interviews (CATI) in April 2007 in South Australia. Statistical analyses were performed using data weighted to the South Australian population.

Results: Of 1,975 household interviews conducted, less than a third (32.0%) of adults believed that enough was being done to prepare for PI with a further 44.7% unsure. Only one third (33.9%) of the community surveyed were able to provide the meaning of pandemic influenza with 8.4% of interviewees having never heard of PI. Acceptance of a vaccine for protection was high both for adults (81.4%) and for children (78.6%). The majority of adults (83.4%) would agree to wear a mask if advised that this would reduce the risk of transmission of infection. Almost two thirds (61.7%) of employed adults interviewed reported that they would currently stay home if they experienced flu-like symptoms. However this proportion increased to 98.2% if home quarantine was part of a national strategy to prevent spread of infection.

Conclusion: Despite publicity about pandemic influenza a large proportion of the community are unaware of this global threat. Our study results show there is strong support within the community for government strategies to prevent the spread of infection but timely education of the public is essential if these strategies are to be effective.

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68.023

Potential Cost Impact in the Netherlands Due to Different Waning Patterns of Cervical Cancer Vaccines

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Background: Cervical cancer vaccines are now available. Since some uncertainty regarding their HPV type-specific antibody waning profiles exists, we examined the clinical and economic impact of different waning scenarios in the Netherlands.
Methods: A Markov cohort model, populated using Netherlands epidemiological, cervical cancer screening, treatment pattern, and cost data was used to perform the analysis. Societal lifetime costs were included at 2006 prices. Initial vaccine efficacy of 95% against HPV-persistent infection with HPV-16/18 plus 30% efficacy against other oncogenic HPV types (“cross-protection”) was assumed in the base case.

Reduction in cancer cases, associated quality-adjusted life years (QALYs) and costs for a vaccine against HPV-16/18, and other oncogenic HPV types with lifetime cervical cancer protection were compared with vaccine scenarios having less than lifetime protection. These scenarios included: 1) alternative combinations of HPV types that wane (HPV-18 alone, oncogenic non-vaccine HPV alone, HPV-18 + oncogenic non-vaccine HPV); 2) alternative durations of protection (range: 5–30 years); 3) alternative patterns representing the time of decline to 0% protection (linear 5-year, linear 10-year, other); 4) alternative rates of booster vaccine coverage (range 0% - 100%) and protection (i.e. double original vaccine protection vs. lifetime protection)

Results: In the hypothetical vaccine scenarios, overall duration of vaccine protection had the largest impact, followed by HPV-type-specific waning, then the pattern of waning decline. Waning impact depended on the relationship between age and HPV infection rate, as well as on HPV-type distribution in cervical cancer. Adding a booster increased the overall costs, but improved clinical outcomes and QALYs.

Conclusion: Vaccine waning is an important characteristic to consider when assessing a vaccine’s effectiveness against cervical disease related morbidity and mortality; a vaccine with more sustained protection is predicted to have better clinical outcomes at lower total costs.

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68.024
Successful Experience of Harm Reduction Program in Taoyuan County
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Background: HIV infections terribly increased in Taiwan since 2004. The number of new infected doubled annually and 70% of them was IDU. Therefore, a harm reduction program started in Taiwan to fight against HIV/AIDS since 2006.

Methods: A harm reduction campaign, including methadone treatment, syringe exchange program, HIV screening and counselling services started in Taoyuan County, Taiwan in 2006. In addition, various health education programs designed for students, inmates, IDUs and general public were carried out simultaneously. Behavioral science survey was also implemented to evaluated the impact of harm reduction campaign

Results: In 2007, a total of 3,299 IDUs enrolled in methadone program; meanwhile 109 stations were set up to provided free syringes exchange and counselling. Through two year’s efforts, the epidemic of HIV infection reversed dramatically in Taoyuan, Taiwan. In 2006, the number of HIV new infected decreased 43% in comparison with that in 2005; furthermore, the number, decreased 44% in 2007 compared with that in 2006. In addition, the crime events related to drugs dropped significantly in recent two years

Conclusions: Harm reduction program is highly effective to prevent HIV infection and improve public security. Medical workers and pharmacists involved harm reduction program also show good support on this program. However, without IDUs’ participation in strategies planning, the program in Taoyuan won’t succeed.

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68.025
Prevalence of Infectious Diseases Among Immigrants Detected in Kuwait
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Keywords: Malaria; Filaria; Human immunodeficiency virus; Hepatitis; Tuberculosis

Background: More than 400,000 immigrants come to Kuwait every year and majority of them from developing countries where infectious diseases are endemic. Our aim was to evaluate the prevalence of six infectious diseases among immigrants and to control the spread of these infections in Kuwait.

Methods: Blood samples from all the immigrants were checked for infectious diseases like, malaria, filaria, HIV, hepatitis B and C and chest x-ray for tuberculosis

Results: The total population screened for malaria and filaria were 682,713; for HIV, tuberculosis, hepatitis B and hepatitis C were 1354,151, respectively. Over all incidence of positivity for these diseases were 9,444 (0.5%). About 226 (0.033%) individuals were infected with malaria and the same number with filaria; 301 (0.022%) with HIV; 3,182 (0.23%) with hepatitis B; 3,247 (0.24%) with hepatitis C and 2,262 (0.17%) with tuberculosis. Most of these infectious diseases were found among Indians, Bangladeshis and Pakistanis, respectively.

Conclusion: The infected individuals with malaria were treated in Infectious Diseases Hospital, whereas, those with filaria, HIV, hepatitis B and C were sent back to their countries because of the risk of transmission. The dominant species of malaria was Plasmodium vivax followed by Plasmodium falciparum.