

SHORT COMMUNICATION ΒΡΑΧΕΙΑ ΔΗΜΟΣΙΕΥΣΗ

Swine flu vaccination: A summary of practice and procedure

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Εμβολιασμός κατά της γρίπης των χοίρων:
Σύνοψη της πρακτικής και της διαδικασίας

Περίληψη στο τέλος του άρθρου

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1. INTRODUCTION

Novel swine flu is a new emerging infection that is a current global public health problem. Since its first appearance in 2009, the infection has been continuously spreading throughout the world, and the World Health Organization has already confirmed the worldwide pandemic of this infection.^{1,2} Up to the present, 2010, the outbreak still exists around the globe. Millions of infected cases and thousands of deaths have accumulated.

Due to the nature of respiratory infectious diseases, this infection can be easily transmitted from person to person. This respiratory viral infection is still pandemic in several countries.^{1,2} Attempts to control this new infection have been continuously made since its first appearance. First, the use of respiratory infection control and sanitation was used, but this was usually not successful. Recently, the new swine flu vaccine was successfully developed and became the new hope for control of the pandemic infection.^{3,4} The new swine flu vaccine was produced in the pandemic phase. It has been recently introduced for a few months and the implementation is established in some countries such as China, USA and Thailand. Here, the author will briefly detail and discuss the practice and procedure of new swine flu vaccination in Thailand, a tropical country that currently is

experiencing the problem of pandemic swine flu.

2. SWINE FLU VACCINATION: PRACTICE

Swine flu vaccine for control of outbreak in human beings is a newly developed vaccine.⁴ It was developed as a pandemic vaccine. Both live attenuated and killed vaccines have been developed. For the killed vaccine, injection is the mode of administration. For lived attenuated vaccine, nasal spraying is the mode of administration. The contraindications are similar to those for the classical influenza vaccine, namely people with allergy to vaccine components.

At the present time, the killed vaccine is more widely used, of which good examples include Sinovac and Pandemrix. The new swine flu vaccine is routinely administered by intramuscular injection. The vaccine can be kept under refrigerated conditions after opening for 8 hours. Single dosage regimen is applied for prevention of swine flu in general population. Liang et al reported on the studies on Sinovac that "one dose of non-adjuvant split-virion vaccine containing 7.5 mug hemagglutinin could be promoted as the formulation of choice against 2009 pandemic influenza A H1N1 for people aged 12 years or older. In children (aged <12 years), two 7.5 mug doses might be needed."⁵

3. SWINE FLU VACCINATION: PROCEDURE

Since swine flu vaccination is a new vaccination of pandemic vaccine, there should be a specifically recommended procedure. The recommendation can be varied depending on the setting. Here, the author will briefly detail on the recommendations in Thailand. First, there must be a specific recommendation on vaccinees. The question is "who should get the vaccination?". The recommendation is set for specific high risk populations, ranging from the top priority: (a) Second and third trimester pregnant subjects, (b) obese subjects (body weight more than 100 kg or BMI [body mass index] >35), (c) subjects with cerebral palsy, (d) individuals aged between 6 months and 64 years with one of these diseases; chronic obstructive pulmonary disease, asthma, cardiovascular disease, cerebrovascular disease, renal failure, cancer undergoing chemotherapy, thalassemia major, AIDS, SLE [systemic lupus erythematosus]

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and other autoimmune disease and diabetes mellitus and (e) medical personnel.

Basically, the vaccination cannot be administered without informed consent. The physician in charge should rule out the underlying contraindications for the swine flu vaccine before ordering the vaccination. There should be a complete consultation system on the vaccine efficacy and adverse effects in the vaccinees. The patients should sign their permission after getting the information and before getting the vaccine injection. Post vaccination observation on adverse effect has to be made. All vaccinees should be closely observed for about half an hour after vaccination. A recording system of any adverse effects should be set. In the case that there is any suspected adverse effect, the emergency care team should be available.

4. WHAT IS THE NEXT STEP FOR SWINE FLU VACCINE RESEARCH?

The next step for swine flu vaccine research should cover necessary aspects of this vaccination. Since the vaccine is introduced as a pandemic vaccine, additional data derived from post vaccination surveillance is needed. The research on cost/effectiveness and risk/benefit of using new swine flu vaccine are required. Close surveillance on the viral molecular epidemiology for the possible mutation of swine flu virus that might lead to vaccine escape is necessary.⁶

ΠΕΡΙΛΗΨΗ

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Η πιο πρόσφατη μέθοδος για τον έλεγχο της νέας γρίπης

των χοίρων αναφέρεται στο τελευταίο εμβόλιο. Το εμβόλιο αυτό εφαρμόστηκε εδώ και μερικούς μήνες, ενώ ο εμβολιασμός βρίσκεται σε εξέλιξη σε αρκετές χώρες. Αναφέρονται λεπτομερώς τα δεδομένα και γίνεται συζήτηση σχετικά με την πρακτική του εμβολιασμού από τη χρήση του νέου εμβολίου στην Ταϊλάνδη, μια τροπική χώρα όπου εμφανίστηκε το πρόβλημα της πανδημίας εξαιτίας της γρίπης των χοίρων.

Λέξεις ευρητηρίου: Γρίπη των χοίρων, Διαδικασία, Εμβολιασμός, Πρακτική

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