

and Paediatric (PICU) Intensive Care Units of the Royal Hospital for Sick Children, Glasgow.

**Methods:** Anonymised, cross-sectional, self-administered questionnaire of all frontline staff in designated clinical areas. Survey conducted between January and March 2010, after commencement of the staff vaccination programme.

**Results:** There were 260 respondents (>40% of frontline staff). 129 (50%) were vaccinated (70%). 67% of medical staff, 40% of nursing staff, and 100% of administrative staff were vaccinated. Uptake was highest in A&E (62%) and lowest in NICU (39%). Commonest reasons for accepting vaccination were responsibility to protect patients and perceived individual high risk of contact with H1N1. After vaccination 70% experienced a localized reaction, and 29% a systemic flu-like illness.

37% of non-vaccinated staff stated willingness to accept the vaccine. Commonest reasons for non-vaccination were uncertainty about safety of the vaccine (47%), concern about side-effects (33%), inability to attend for vaccination (22%) and lack of vaccine availability (12%).

**Conclusions:** Despite a high-profile nationwide programme, only 50% of frontline healthcare staff were vaccinated against H1N1. Future vaccination programmes should address staff education, convenience and vaccine availability, in all clinical areas, to improve uptake.

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### INFLUENZA A H1N1V VACCINATION IN PEDIATRICS: REASONS FOR NON- VACCINATION

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**Introduction:** The immunization campaign for influenza H1N1v began in October 2009. Alarmist warnings were spread amongst the population, creating insecurity and doubt. In Portugal, the vaccination rate was lower than in other European countries.

**Objective:** To evaluate the reasons for non-vaccination influenza H1N1v in a portuguese pediatric population.

**Methods:** Cross sectional aleatorized descriptive study. A survey was applied to the parents from January to March 2010. Statistical analysis was performed using SPSS®v17.0.

**Results:** We analyzed 495 surveys; 403 (81.4%) children were not vaccinated. They showed reduced rates of chronic diseases as asthma (5.7%vs17.4%, $p < 0.001$ ) or diabetes (1%vs3.3%, $p = 0.096$ ). No children with overweight were vaccinated. Parent's education degree (basic education 22.8%vs7.6%) and mother's vaccination (3.2%vs17.4%, $p < 0.001$ ) was lower in these group. "Fear of the vaccine" (24.2%), "still not well tested" (26.7%) and "absence of a firm and convincing advice of medical assistants" (26.4%) were factors for non-vaccination. Most (62.3%) of these parents reported the media as the primary source of information. 31.5% of parents think it contains a lived virus, 51.9% believe that vaccine caused deaths and 38.3% feared more complications than other vaccines. Despite the non-vaccination rate 68% think virus is more dangerous than the vaccine.

**Conclusions:** A new vaccine tends to be received with fear and media should be an important ally of health organizations. The decision to vaccinate is influenced by the presence of chronic disease, parent's academic degree and their own need for vaccination. The results highlight the need to modify strategies for information regarding health, disease and vaccination.

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### TESTING FOR RESPIRATORY SYNCYTIAL VIRUS DURING BRONCHIOLITIS CARE EPISODES IN AN INTEGRATED HEALTH CARE DELIVERY SYSTEM

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**Background:** A prospective study estimated that 64% of children with bronchiolitis tested positive for respiratory syncytial virus (RSV), however, no studies have examined frequency or predictors of RSV testing.

**Objective:** To determine rates and predictors of RSV testing during bronchiolitis care episodes.

**Design/methods:** Retrospective cohort study involving 125,031 infants  $\geq 32$  weeks gestation born at 6 Kaiser Permanente hospitals 1996-2002. We defined an episode as a time period that:

- 1) included selected diagnosis codes (e.g., 466.1 acute bronchiolitis),
- 2) began with a related diagnosis code 2 days prior to a specific bronchiolitis code, and
- 3) ended with a relevant diagnosis code followed by 14 clear days.

**Results:** Of 21,789 bronchiolitis episodes of care in our cohort, 4275 (19.6%) had at least one test for RSV. In multivariate analyses, gestational age 34-36 weeks, hospitalization status, and length of episode between 2-13 days predicted testing status, with adjusted odds ratios of 1.23 (95%CI, 1.07, 1.41), 17.6 (15.3, 20.1) and 3.49 (3.20, 3.80), respectively. Overall, 45.5% of RSV tests were positive.

**Conclusions:** Only a small portion of infants with bronchiolitis are tested for RSV, leading to an underdiagnosis of RSV by approximately 80%. The strongest predictors of testing status are episode length and whether the episode includes a hospitalization.

The study was sponsored by MedImmune.

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**THE TRANSMISSION RATE OF CYTOMEGALOVIRUS TO EXTREMELY PRETERM INFANTS IS NOT REDUCED BY ROUTINE FREEZING OF MATERNAL MILK**

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**Background and aims:** Breastmilk induced cytomegalovirus (CMV) transmission can cause symptomatic disease in the extremely preterm infant (EPI). The aim of this study was to evaluate if routine freezing of maternal milk reduces CMV transmission and disease.

**Methods:** One hundred forty EPIs (< 28 weeks) and their 127 mothers were included. Infants were randomized to be fed *only* freeze-thawed maternal milk (FTM) or *both* fresh and freeze-thawed maternal milk (F+FTM). FTM was frozen at -20°C for  $\geq 3$  days. In mothers CMV serology was taken and maternal milk was analyzed using CMV-PCR and CMV culture. In EPIs CMV was analyzed in urine by PCR and culture until 6-12 weeks post partum. Signs and laboratory findings were documented in infants infected by CMV.

**Results:** Sixty-nine EPIs were randomized to be fed FTM whereas 71 were randomized to be fed F+FTM. CMV serology was taken in 116 mothers and in 81 (70%) CMV-serology was positive. Of the CMV seropositive mothers, breastmilk was positive for CMV-DNA in 66 (81%) and CMV culture was positive in 56 (70%). CMV was transmitted to 4 of 37 (11%) EPIs that were fed CMV-positive FTM and to 2 of 34 (6%) EPIs that were fed CMV-positive F+FTM (NS). No infant developed clinical signs of CMV disease. However, transient hepatic affection occurred in 2 infants in the FTM group and in 1 infant in the F+FTM group .

**Conclusions:** Routine freezing of maternal milk did not reduce the risk for CMV transmission or symptomatic disease in the EPI.

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**INTERFERON- $\gamma$ , INTERFERON- $\gamma$ -INDUCIBLE PROTEIN-10 AND TUBERCULIN SKIN TEST RESPONSES OF HIV-POSITIVE AND HIV-NEGATIVE CHILDREN IN NORTHEAST BRAZIL**

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**Background and aims:** Detection of latent tuberculosis (TB) infection (LTBI) and provision of chemoprophylaxis is an important strategy for TB control, particularly for HIV-infected children. Assessing LTBI in this population is difficult because the tuberculin skin test (TST) is unreliable in immunosuppressed individuals. Interferon- $\gamma$  release assays (QTF) have been recently used as complementary tools for the diagnosis of LTBI and Interferon- $\gamma$  inducible protein-10 (IP-10) has been evaluated as a potential marker for detection of *Mycobacterium tuberculosis* infection. Our aim was