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A SURVEY OF PAEDIATRICIANS' KNOWLEDGE AND PRACTICES ABOUT INFLUENZA VACCINES IN HIGH RISK GROUPS OF CHILDREN

H.F. Ayyash¹, M.O. Ogundele², M. Babiker¹

¹Dept of Paediatrics, Doncaster and Bassetlaw NHS Foundation Trust, Associated Teaching Hospitals, Doncaster, ²Dept of Community Paediatrics, Alder Hey Childrens' Hospital NHS Foundation Trust, Liverpool, UK

Aims and background: We aimed to assess paediatricians' awareness of Chief Medical Officer's (CMO) recommendations in relation to influenza vaccination of high risk children in the Trent region of England.

Methods: A questionnaire was posted out to 100 consultant paediatricians. A total of 68 questionnaires were returned and analysed.

Results: 41% and 49% of the respondents were working in tertiary and district hospitals respectively. 89% of them claimed to be aware of the CMO's newsletters which listed the high-risk groups of children requiring influenza vaccines.

The highest rates of vaccine recommendation were for children with chronic lung disease (70.5%), congenital heart disease (68%), cystic fibrosis (66%), chronic heart failure (63%), asthmatics requiring regular steroids (62%), neuromuscular diseases (59%), severe splenic dysfunction (59%), children aged below 5 years with previous invasive pneumococcal disease (56%), diabetes mellitus (53%) and chronic renal failure (48.5%).

The lowest rates of vaccine recommendations included nephrotic syndrome (43%), post renal transplant (41%), chronic liver disease (35%), cirrhosis (26%), HIV/AIDS (37%), children on chemotherapy/steroids (38%), previously admitted for asthma (22%) or with a lower respiratory tract disease (9%).

Conclusion: Most paediatricians were aware of the CMO recommendations on influenza vaccines for high risk children. This knowledge however was not always translated into correct advice given to patients in routine clinical practice. We recommend that regular education and training for the busy practising paediatricians should be undertaken to

ensure that continual high quality of care is rendered to children who need to be vaccinated with the Influenza vaccine.

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A SURVEY OF PAEDIATRICIANS PRACTICES AND KNOWLEDGE ABOUT PNEUMOCOCCAL VACCINES IN HIGH RISK CHILDREN BEFORE THE ERA OF UNIVERSAL IMMUNISATION

M.O. Ogundele¹, H.F. Ayyash², M. Babiker²

¹Dept of Community Paediatrics, Alder Hey Childrens' Hospital NHS Foundation Trust, Liverpool, ²Dept of Paediatrics, Doncaster and Bassetlaw NHS Foundation Trust, Associated Teaching Hospitals, Doncaster, UK

Aims and background: We aimed to assess the knowledge and practice of paediatricians in the Trent region of England about the Chief Medical Officer's (CMO) recommendations for the pneumococcal vaccines (PV) to high-risk children before the introduction of the vaccine into the routine universal immunisation programme in Sept 2006.

Methods and Design: A total of 68 self-administered questionnaires were returned from a total of 100 posted out to paediatricians in the Trent region.

Results: 89% of the paediatricians were aware of the CMO's recommendations of pneumococcal and influenza vaccines to high risk children. The most correctly identified high risk groups for PV were children with asplenia / splenic dysfunction (71%), chronic lung disease (69%), previous invasive pneumococcal disease (65%), congenital heart disease (63%), neuromuscular diseases (59%), nephrotic syndrome (57%), cystic fibrosis (54%) and chronic heart failure (54%).

HIGH RISK GROUPS		Vaccines recommended *
Children having a chronic (ongoing) lung disease.	Cystic fibrosis	54%
	Chronic lung disease	69%
	Previously admitted with a lower respiratory tract disease	9%
	Asthmatics requiring regular use of inhaled or systemic steroids	41%
	Previously admitted because of asthma	9%
Respiratory conditions caused by or predisposing to aspiration. Chronic heart disease e.g. requiring regular medication. Chronic kidney disease such as	Neuromuscular disease (eg CP)	59%
	Congenital heart disease	63%
	Chronic heart failure.	54%
	Nephrotic syndrome	57%
	Chronic renal failure	48.5%
Chronic liver disease such as	Post renal transplant	37%
	Biliary atresia, Chronic hepatitis	38%
	Cirrhosis	28%
	Asplenia or severe splenic dysfunction (eg. sickle cell anaemia or Coeliac disease).	71%
	HIV/AIDS	43%
Immunocompromised patients	On chemotherapy or steroid treatment	38%
	Diabetes mellitus.	41%
	Children with cochlear implants	44%
	Patients with CSF shunts	31%
	Children under the age of 5 who have previously had invasive pneumococcal disease	65%

[Table1]

The least correctly identified high-risk groups were children previously admitted for asthma or a lower respiratory tract disease (9% each), cirrhosis (28%), patients with CSF shunts (31%), following renal transplant (37%), on chemotherapy or steroids (38%) and chronic liver diseases (38%).

Conclusion: Most paediatricians were aware of the CMO's recommendations on pneumococcal vaccines for high-risk children. This knowledge however was poorly translated into correct advice given to patients. The introduction of PV into the universal immunisation schedule would enable all the high-risk children to be optimally protected and not subjected to the unreliable knowledge of their busy paediatricians and "postcode lottery" effect.

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CHARACTERIZATION OF RECOMBINANT SABIN POLIOVIRUS ISOLATED FROM CHILDREN WITH ACUTE FLACCID PARALYSIS

T.N. Dhole, A. Kumar, D. Shukla

Microbiology, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India

Background and aims: Oral poliovirus vaccine (OPV) proved to be very effective vaccine for interrupting wild poliovirus transmission. However, due to its genetic instability OPV is the potential source of vaccine derived polio virus (VDPVs). Therefore, we studied to detect recombination in

Sabin poliovirus (SPV) isolated from children with acute flaccid paralysis (AFP).

Methods: Virus isolation was carried out from 800 consecutively collected stool samples from 400 patients with AFP enrolled during August-December 2009 in northern India. RT-PCR and sequencing was performed to detect recombination and characterization of SPV. Reproductive capacity temperature assay was done to study the phenotypic characteristics of recombinant Sabin PV.

Results: Of 80 SPV, 5 (6.25%) were confirmed as recombinant SPV. Three strains (3.75%) were found to be bi-recombinant (Sabin3/Sabin2); two strains (2.50%) were characterized as multirecombinant (Sabin3/Sabin2/Sabin1). There was a common recombination junction in the 2C genomic region for three isolates and in 3D genomic region for two isolates. Four recombinant strains (80.0%) have lost temperature sensitivity and clinically behaved as wild on 60 days follow up of the patients.

Conclusions: Our study underlines the role of specific positions and motifs of the poliovirus genomic sequences involved in recombination process. In the last stage of poliovirus eradication there is a need of careful monitoring and characterization of Sabin poliovirus to achieve the goal of poliomyelitis eradication world wide.

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DEVELOPMENT, EVALUATION AND APPLICATION OF A WEB-BASED IMMUNIZATION REGISTRY SYSTEM

M. Theodosiou, M. Diomidous, E. Velonakis, J. Mantas

University of Athens, Athens, Greece

Vaccination decreases children mortality and its' application, especially in the developing world, is a means towards the achievement of the United Nations Millennium Development Goals.

Objects: We sought to develop, apply and, evaluate a web-based immunization registry system that logs and calculates the vaccination timetable based on the age, gender, and previously administered vaccine doses.

Method: We designed and created a computational system based on the Greek National Immunization Program. The system was used by pediatricians and parents for a period of 4 months (01/09/2009-