Rotavirus in Kiwi Kids

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A well-known health issue currently within New Zealand is the presence and spread of Rotavirus. Rotavirus is a topic of concern in the health industry as it results in the hospitalization of many children (Immunisation advisory centre, 2013). The rotavirus vaccine has recently been introduced as part of the free immunisation schedule (Ministry of Health, 2011). Various research has been undertaken to determine the effects that this vaccine has on both the spread of the virus and the improvement of health in our nations' children.

(mumstreet.co.uk, 2014)

Rotavirus is a contagious virus that causes gastroenteritis by infecting the intestines. Rotavirus is responsible for almost all gastroenteritis cases in children globally (Lepage, 2008). The virus mostly infects children and causes severe dehydration due to persistent diarrhoea (Harris, Nagy & Vardaxis, 2011).
Those most at risk are children between six and twenty four months. Adults can also be infected but often only experience mild effects (Immunisation advisory centre, 2013). Globally, rotavirus is the cause of death for 500,000 children each year, with more than 220,000 paediatric hospital admissions in developed countries, such as New Zealand (Ministry of Health, 2011).

(interactive, 2014)

Using the PECOT Model, a research question was refined to the following;

'In children aged between 4 and 23 months of age, does the Rotavirus vaccine aid in reducing the number of children admitted to paediatric wards, having been infected with Rotavirus?'

After having completed a literature review, further recommendations on how to gain knowledge from this topic I would suggest further research, on both the impact of Rotavirus on the health of our children and further education to both health care professionals and those who access health care. As there could never be enough research on one topic, more research will only help nurses to gain more insight into this topic, to then provide education to patients and their families, so they can feel empowered to make an educated decision. I would also recommend better education to patients, as nurses it our duty to provide patients with all the information they need in order to make their own health decisions, especially where immunisations are concerned as it is a very personal decision to be made (Ministry of Health, 2011). It is up to us as nurses to have the knowledge to educate patients in the area of health care that they are concerned with (St John & Keleher, 2007). As health care is a constantly moving field, research review is the only way to gain current knowledge.

The second article provided a large review of other trials, giving a larger indication of the effects the Rotavirus vaccine provides. The article picked a select few papers for analysis and drew conclusions based on the similarity in results. Studies were identified which reported hospitalizations due to Rotavirus, hospitalizations due to diarrhoea and Rotavirus that is of any severity. The results show that there were no recorded deaths from diarrhoea, however high hospitalizations rates. The use of the Rotavirus vaccine proved to show a significant protection in infants with 89% protection against severe Rotavirus and 93% against hospitalizations due to Rotavirus. It was estimated from the trial that the rotavirus vaccine prevents 74% of deaths due to Rotavirus and 47-57% of hospitalizations due to the virus (Munos et. al., 2010). This study gives good insight to the efficacy of the vaccine on hospitalization rates, although it is not largely directed at children however the article is a review of Rotavirus in developed countries, which is concurrent to New Zealand.

A third article is an investigation mainly on the side effects risks of the Rotavirus vaccine, providing decent evidence of the benefits that it has on children and the reduction of hospital admissions due to the virus. This article provides guidance to parents in the decision making process of immunizing your child (NPS Medicine Wise, 2013). The results from the article show that the Rotarix vaccine, compared with a placebo, provide high protection at preventing the infection of the virus, and is concluded that although there is some risk to intussusception which can cause a blockage in the intestine, the benefits of the vaccine are much greater than any risk (NPS Medicine Wise, 2013). From this article my current knowledge on parents education and weighing the benefits and risks of immunisations has been cemented, and aids in the review of my research question.

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(adhb.govt.nz, 2014)

Rotavirus is becoming more known in New Zealand as the introduction of the free vaccine is to be introduced which cements the importance of gaining knowledge on the virus itself, how it effects our children and the parents around us, and the risks and benefits associated with its prevention, the vaccine. It has helped to understand the benefits to the health of New Zealand's children, but also on health care in general, as it lessens the hospital demand and makes space for more children to be treated for other means (The New England Journal of Medicine, 2006). I look forward to applying this knowledge to my future practice as a nurse.