The Chicken Pox Vaccine, could it be include in the National Immunisation Schedule?


(O.L.M, 2009)

Background /Introduction:

Chicken pox is a highly infectious childhood disease characterised by a red spotted rash. While typically considered mild, it causes ~250-300 hospitalisations per year, with 1-2 of these cases resulting in long term disability or death. (Macartney & Burges, 2008). Yet essentially it is a preventable disease. A vaccine against chicken-pox has existed since the 1970s and is part of the immunisation schedules in the US and Australia (Sharpio et al, 2011: Ward et al 2013). Despite this its only available in NZ at a user pay basis (Reid, 2012) which made me wonder if it could it be included in the current schedule.

Clinical issue:

Administering and giving advice on childhood immunisations is a key part of the nurses role, in particular in the community. Nurses need to be educated on the major diseases that current exist and the vaccinations that can prevent them, both funded and non-funded. Chicken pox is of particular importance because it one of the most common childhood diseases. There is no formal process that a vaccine needs to go through in order to become part of the schedule but aspects to consider include: Its effectiveness, safety, and how it would fit into the current New Zealand schedule (Reid, 2012).

Effectiveness:

Arguably the most important factor in deciding if a vaccine could be included into the schedule is effectiveness. Studies have shown that vaccines against chicken pox need to be given in 2 doses in to prevent breakthrough cases occurring. When given in said regime the vaccine is 98% effective at preventing the chicken pox. The vaccine should not be given before 12 months of age and the doses need to be separated by at least 6months (Sharpio et al, 2011).

Safety:

Vaccines against chicken pox vaccine have been proven to be safe and well tolerated, with only the usual pain and redness at the site of injection occurring (Sharpio et al, 2011). It is important for nurses to know the side effective profile of vaccines in order to provide the appropriate pre and post vaccination information.

Would it fit into the current schedule?

Currently a vaccination against chicken pox does not fit into the New Zealand immunisation schedule. The second dose could be given at 4 years, but the first one is problematic. At 15mnths children already receive 3 injections, so adding a chicken pox vaccine would mean a 4th injection or require an extra visit. With neither option being ideal, (Reid, 2012).

Recommendations/Conclusion:

The chicken-pox vaccine has been proven to be safe and effective. But there is no simple place for it to fit into the current schedule and therefore I would not recommend its inclusion. In order to solve this problem, I suggest that parents/ caregivers and vaccinators be surveyed as to their preferred option. An extra injection at 15mnts or a extra visit. Even though a vaccine for chicken pox may not be ready for inclusion in the schedule right now, it is still important for nurses to be educated on the current health major diseases that exist in New Zealand.

References:

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PECOT model:
I used Schneider, Whitehead, LoBiondo-Wood, & Haber's (2013) PECOT model (as shown below) to formulate and refine my research question.

P.E.C.O.T category:	Information relating to question:	Explanation:
Population	Healthy children under the age of 12	This is when the population is at most risk of obtaining varicella. This is also the age of which the current New Zealand Immunisation schedule runs up to.
Exposure (intervention)	Immunisation against varicella / Countries that have varicella as part of their immunisation schedules.	I want to find out effectiveness of the vaccine the safety and review how similar programmes have worked it other countries
Comparison/control	Non- Immunisation against varicella / countries that do not have varicella in their immunisation schedules	I'm interested in finding out if varicella could be introduced to the New Zealand schedule so will use the current system as a control as it is not part of the schedule now.
Outcome	A varicella vaccine as part of the schedule	Whether a varicella vaccine would fit into the national schedule or not.
Time	Studies that have follow up periods of more than 2 years	In order to determine whether or not varicella vaccination could become part of the national immunisation programme, we must look at the long term effects.

References:
Schneider, Z., Whitehead., D. (2013). Identifying research ideas, questions, statement & hypotheses. In Z. Schneider, D. Whitehead, G. LoBiondo-Wood, & J. Haber. Schneider, Z., Whitehead., D. Nursing and midwifery research methods and appraisal for evidence – based practice (4th ed.). (pp. 57-76). Sydney, Australia: Mosby.

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