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Cross-sectional Retrospective Study on Paracetamol Post Infants' Vaccination in Malaysia

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Abstract

Introduction: Practice of dispensing paracetamol (PCM) in post infants' vaccination remains debatable in Malaysia as the administration of PCM postvaccination in infants was found to cause the vaccine to be less effective, thus requiring appropriate regulation measures. Objective: This research aimed to investigate the prevalence of adverse events following immunization (AEFI) with/without PCM to be prescribed post infants' vaccination in Malaysia (possible associated factors: age, types and stages of vaccination, concomitant vaccines and drugs, and/vitamins). Materials and Methods: A retrospective cross-sectional study was conducted from 2011 to 2017. The AEFI was extracted from Quests 2, 3, and 3+ System of National Pharmaceutical Regulatory Agency (NPRA). The population of vaccinated infants was obtained from the Ministry of Health (MOH) Malaysia official website. The AEFI data were further categorized into (i) AEFI with possibility for PCM to be prescribed, and (ii) AEFI with no possibility for PCM to be prescribed. The data were analyzed using Microsoft Excel 2013, Portland, USA simple and multiple logistic regression tests, Statistical Package for the Social Sciences (SPSS) software programme, version 22.0 (IBM, New York, USA. Result: Various AEFI cases (359 infants) were reported. DTaP/Hib/IPV and measles-mumps-rubella (MMR) showed higher prevalence of AEFI with/without PCM to be prescribed post infants' vaccination cases per 100,000 population (2.07 and 2.21, respectively) than other types of vaccinations. DTaP/Hib/IPV (2 months) vaccination showed the highest value (3.00) among other age groups. Backward elimination presented DTaP/Hib/IPV (3-4 months) (95%CI; 0.231, 0.899%; P = 0.023) was the possible associated factor. Hepatitis B (1-5 months), DTaP/Hib/IPV (3-4 months), DTaP/Hib/IPV (5-12 months), concomitant vaccines as well as concomitant drugs and/ vitamins were the identified potential cofounders. Conclusion: Prescribing and dispensing of PCM post infants' vaccination may be confined to DTaP/Hib/IPV (2-4 months) and 12 months MMR groups.

Keywords

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1. Title: [not available] Times Cited: 41
By: Cox, D. R.; Snell, E. J.
Analysis of Binary Data Volume: 32 Published: 1989
Publisher: CRC Press, Florida, USA
2. [A Randomized Placebo-Controlled Trial of Acetaminophen for Prevention of Post-Vaccination Fever in Infants](#) Times Cited: 16
By: Jackson, Lisa A.; Peterson, Do; Dunn, John; et al.
PLOS ONE Volume: 6 Issue: 6 Article Number: e20102 Published: JUN 17 2011
3. [Childhood febrile seizures: overview and implications.](#) Times Cited: 39
By: Jones, Tonia; Jacobsen, Steven J
International journal of medical sciences Volume: 4 Issue: 2 Pages: 110-4 Published: 2007 Apr 07
4. [Fever after immunization: Current concepts and improved future scientific understanding](#) Times Cited: 36
By: Kohl, KS; Marcy, SM; Blum, M; et al.
Group Author(s): Brighton Collaboration Fever Worki
CLINICAL INFECTIOUS DISEASES Volume: 39 Issue: 3 Pages: 389-394 Published: AUG 1 2004
5. [A NOTE ON A GENERAL DEFINITION OF THE COEFFICIENT OF DETERMINATION](#) Times Cited: 3,037
By: NAGELKERKE, NJD
BIOMETRIKA Volume: 78 Issue: 3 Pages: 691-692 Published: SEP 1991
6. [Effect of prophylactic paracetamol administration at time of vaccination on febrile reactions and antibody responses in children: two open-label, randomised controlled trials](#) Times Cited: 196
By: Prymula, Roman; Siegrist, Claire-Anne; Chlibek, Roman; et al.
LANCET Volume: 374 Issue: 9698 Pages: 1339-1350 Published: OCT 17 2009
7. [An open-label randomized clinical trial of prophylactic paracetamol coadministered with 7-valent pneumococcal conjugate vaccine and hexavalent diphtheria toxoid, tetanus toxoid, 3-component acellular pertussis, hepatitis B, inactivated poliovirus, and Haemophilus influenzae type b vaccine](#) Times Cited: 14
By: Rose, Markus A.; Juergens, Christine; Schmoel-Thoma, Beate; et al.
BMC PEDIATRICS Volume: 13 Article Number: 98 Published: JUN 21 2013
8. [Intermittent clobazam therapy in febrile seizures](#) Times Cited: 26
By: Rose, Winsley; Kirubakaran, Chellam; Scott, Julius Xavier
Indian Journal of Pediatrics Volume: 72 Issue: 1 Pages: 31-33 Published: January 2005
9. [The Relevancy of Paracetamol and Breastfeeding Post Infant Vaccination: A Systematic Review](#) Times Cited: 1
By: Suleiman, Nurain; Shamsudin, Siti Hadijah; Rus, Razman Mohd; et al.
PHARMACY Volume: 6 Issue: 2 Article Number: 27 Published: JUN 2018
10. [Immunogenicity and safety of an investigational multicomponent, recombinant, meningococcal serogroup B vaccine \(4CMenB\) administered concomitantly with routine infant and child vaccinations: results of two randomised trials](#) Times Cited: 188
By: Vesikari, Timo; Esposito, Susanna; Prymula, Roman; et al.
Group Author(s): EU Meningococcal B Infant Vaccine
LANCET Volume: 381 Issue: 9869 Pages: 825-835 Published: MAR 9 2013

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