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Cross-sectional retrospective study on paracetamol post infants' vaccination in Malaysia (Article) [\(Open Access\)](#)

Suleiman, N.^{a,b}, Shamsudin, S.H.^b, Rus, R.M.^c, Draman, S.^d

^aPharmaceutical Services Division, Johor State Health Department, Ministry of Health Malaysia, Putrajaya, Malaysia

^bDepartment of Pharmacy Practice, Kulliyah of Pharmacy, International Islamic University Malaysia (IIUM), Kuantan, Malaysia

^cDepartment of Community Medicine, Kulliyah of Medicine, International Islamic University Malaysia (IIUM), Kuantan, Malaysia

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Abstract

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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. © 2020 Wolters Kluwer Medknow Publications. All rights reserved.

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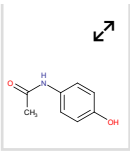
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