

## Postinfectious Bronchiolitis Obliterans (PIBO) among Children in Malaysia: A Retrospective Study

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### ABSTRACT

**Introduction:** Postinfectious bronchiolitis obliterans (PIBO) is an irreversible obstructive lung disease following lower respiratory tract infection (LRTI) in children, especially during the first three years of life. It is estimated that 1% of LRTI in children will develop into PIBO; however, the Malaysian data are scarce. Our aim was to describe the characteristics of the children less than 5 years old diagnosed with PIBO from the year 2015-2019 (5 years period). **Methods:** This retrospective study involved ten hospitals under Ministry of Health (MOH) visited by a Respiratory Paediatrician. Children less than 5 years old diagnosed with PIBO between 1st January 2015 and 31st December 2019. **Results:** Sixty children were included with a male predominance (60.0%), and majority were Malays (83.4%). The median age at diagnosis was 15.0 months (IQ range 10.25-25.5 months) ranging between 2.0 and 80.0 months. Seventeen (28.3%) of the children were born prematurely (<37 completed weeks), and 10(16.7%) children required ventilation during the neonatal period. One-third of the patients had a family history of atopy, and half of the children had a history of exposure to tobacco smoke. Recurrent infections was reported in about 8.5% children. Viruses were predominant pathogen in LRTI i.e. Adenovirus (58.3%), RSV (34.0%), Influenza virus (8.5%) and Para influenza virus (8.5%). **Conclusion:** It is important to recognize PIBO as one of the complications of LRTI in young children, especially following respiratory virus infection. Prematurity and exposure to tobacco smoke may increase the risk of LRTI in children, which leads to complication like PIBO.

## Drug Related Problems Encountered in Outpatient Pharmacy Setting at Hospital Pakar Sultanah Fatimah, Muar

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### ABSTRACT

**Introduction:** Drug related problems (DRPs) lead to negative health outcomes among patients in terms of morbidity, mortality and increased health care costs. The study aimed to evaluate the DRPs by determining the incidence and causes of DRPs as well as the interventions conducted to resolve the DRPs. **Methods:** This is a prospective, cross-sectional and observational study conducted in November 2020 by pharmacists in Outpatient Pharmacy Setting. Outpatient Pharmacy supplies medications to the patients who visit to the specialist clinics of the hospital as well as the patients who were discharged from wards. All DRPs detected from the received prescriptions and the interventions conducted during the study period were documented and analysed. **Results:** Of the 9598 prescriptions received, 319 DRPs were identified. "Treatment Effectiveness" (55.8%) was the most common DRPs. The main causes of DRPs were "Drug Selection" (38.73%) and "Dose Selection" (31.21%). A total of 634 interventions were conducted: 76.14% were done at prescriber level and 23.14% were done by changing drug or indicating change in drug use. Of the 441 interventions proposed to the prescribers and patients, 438 (99.5%) were accepted. All 319 (100%) DRPs were totally solved. **Conclusion:** The data collected can primarily be utilised to bring solutions to avoid future medication errors and optimise therapeutic outcomes, by identifying and preventing higher tendency of repetitive DRPs to occur. As a whole, it brings increase cost-effectiveness on health care resource utilisation.