

# Bed-watcher system: does it able to improve hospital bed management?

**Zulkarnain Abd Karim Suhaizanzulailla Ahmad, Ku Anis Shazura Indera Putra, Zurriyati Ya'kub, Mohamad Zaidan Zulkepli, Norazlin Muharam, Sharimah Ahmad, Azni Mazhana Abdul Manab, Tajuddin Mohd Nor, Siti Haniza Mahmud**

Institute for Health Systems Research, Hospital Tuanku Ampuan Rahimah, Klang

## ABSTRACT

**Introduction:** The unpredictable volume of emergency admissions can cause hospitals to experience frequent bed shortages especially when the beds are not properly managed. Thus, Bed-watcher system (BWS) was introduced to Hospital Tengku Ampuan Rahimah (HTAR) as an initiative to visualised bed status for better bed management. This study aimed to evaluate effectiveness of BWS in improving bed management process in HTAR. **Methodology:** This study used a mixed-methods approach. 3-month data was retrieved from the BWS database and hospital reports for year 2015 (pre) and 2016 (post) and used to compare Bed Occupancy Rate (BOR), Bed Turnaround Time, Discharged Time (DT) and Patient Transfer (PT) between the two intervals. In-depth interviews (IDIs) and focus group discussions (FGDs) were conducted with hospital staffs and patients to explore their experience of bed management condition with the BWS. Thematic analysis is based on Health Metrics Network (HMN) framework. **Results:** The quantitative results showed an increase of BOR from 2015 to 2016. However, BTT had a reduction in performance. Although DT performance is maintained above 90% for both years, number of PTs increased by 24.8%. These results reflected that bed management performance of HTAR did not really improved. The findings from IDIs and FGDs indicated that staffs of HTAR have started to fully accept BWS and use it on day to day basis. In addition, overall satisfaction of both staff and patients on bed management in HTAR has improved. The staff also raised issues that are crucial for the implementation of BWS at HTAR. **Discussion/Conclusion:** Although quantitative improvement of using BWS is not evident, findings from IDIs and FGDs indicated acceptance and overall satisfaction from internal and external clients. Hence, to enhance implementation of BWS, issues regarding directives, infrastructure, manpower, training and processes should be tackled by the management.

Med J Malaysia Vol 72 Supplement 1 August 2017:A29

# Birth prevalence of microcephaly in Malaysia

**Kavita-Jetly Amar-Singh HSS, Chong Chee-Kheong, Jeyaseelan Nachiappan, Ng Hoong-Phak, Thiyagar Nadarajaw, Irene Cheah**

Clinical Research Centre Perak, Malaysia, Paediatric Department, Hospital Raja Permaisuri Bainun, Ipoh, Perak, Malaysia, Disease Control Division, Ministry of Health Malaysia, Paediatric Department, Hospital Umum Sarawak, Kuching, Sarawak, Malaysia, Paediatric Department, Hospital Sultanah Bahiyah, Alor Setar, Kedah, Malaysia, Paediatric Department, Institut Pediatrik Kuala Lumpur, Malaysia

## ABSTRACT

**Introduction and Objectives:** Although Zika is no longer considered an international emergency, it still remains of major global concern. There is some evidence linking the Zika virus with congenital microcephaly. The objective of this study was to determine the birth prevalence of microcephaly in Malaysia. **Methodology** A multi-centre, cross-sectional study was conducted in all government hospitals with paediatricians. All Malaysian, live, term neonates delivered between August and October 2016, and weighing  $\geq 2500$ g were included in the study. The head circumference (OFC) of neonates was measured by paediatric medical officers in the postnatal wards. An anthropometric guideline was provided to each study hospital. An OFC of  $\leq 32$ cm or OFC which appears small for height and weight (clinically microcephalic) was used as a screening criteria for suspected microcephalic neonates. Neonates with suspected microcephaly were referred to paediatricians for further assessment. True microcephaly was defined as neonates with absolute OFC below or at the 3SD (standard deviation) of the WHO Growth Chart for term infants. **Results and Discussion:** 23 (45.1%) out of 51 specialists hospitals consented to participate. During the study period, there were a total of 29,087 births, of which 15,502 (53.3%) neonates were screened for microcephaly. 2.8% (430/15,502) of those screened were suspected to be microcephalic. Only 7 neonates (0.05% of neonates screened) were confirmed to be microcephalic. The microcephaly rate obtained in this study was 4.52 per 10,000 births (95%CI: 2.19, 9.32). This microcephaly rate was much higher than in most published reports as well as passive Ministry of Health reports (1 per 10,000 births). However, it is in line with rates suggested by Centres for Disease Control and Prevention (CDC) USA (2-12 per 10,000 live births). **Conclusion:** No high prevalence of microcephaly was found in this study. Only 0.05% of all neonates screened had microcephaly.

NMRR-16-648-30377