

ABSTRACT

Factor Associated Pediatric Emergency Room Crowding at Pediatric Outpatient Department, Siriraj Hospital

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Background: Emergency room (ER) crowding commonly affects patient care and safety. To know the factors that are associated with the ER crowding will help managing the ER resources to maximize the quality of care.

Objectives : To know the factors ,associated with pediatric ER at Siriraj hospital by using Modified Emergency Department Work Index (Modified EDWIN)

Methods : This study collected data of patients who were under 18 years old, visited pediatric ER at Siriraj hospital. The number of doctors, nurses, patients, the individual triage acuity of patients, number of bed available in emergency room and number of patient who were in the process of hospital admission at 4 time-point a day (9.00am, 10.00am, 11.00am and 12.00am) for 60 days (total 240 time points). Then modified EDWIN scores were calculated to find an association between the crowding of ER and the 6 factors (time during semester vs time during semester break, seasons, the day after long holiday vs the days after normal weekend and normal work days, week days, time point, total number of patient visits each day)

Result : The mean modified EDWIN score was peak on the day after long holiday compared with the normal work days (0.237 vs 0.1789, P 0.015). The time at 11.00 AM was the highest crowded, while the lowest point was at noon (modified EDWIN score 0.2101 vs 0.1619, P 0.024)

Conclusion: the day after long holiday and the time of 11 AM were associated with crowding in pediatric ER.

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Keywords : Crowding; Pediatric emergency; Modified EDWIN score; Time point; Factor associated ER crowding