

## Five-year experience with Pharmaceutical care services in Pediatric cancer patients at Queen Sirikit National institute of Child Health

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**Background:** Queen Sirikit National institute of Child Health (QSNICH) has been introducing cytotoxic drugs preparation by pharmacist for use in out-patients since July 2004 and in-patients since Jan 2007. A pharmaceutical care service has been provided with the collaboration of physicians, nurses and pharmacists since Oct 2006. There are several drug related problems (DRPs) occurred that were potential roles of pharmacist to minimize DRPs.

**Objective:** To characterize DRPs and identify pharmacist's intervention in pediatric cancer patients.

**Methods:** The descriptive study was conducted in hospitalized cancer patients at QSNICH during Oct 2006 – Sep 2011. The data was collected from pharmaceutical care documentation forms and pharmacy data base in hospital information system. Demographic data, DRPs and pharmacist's interventions were examined by using the descriptive analysis.

**Results:** There were 544 patients recruited, of which 334 (61.40%) were males and 210 (38.60%) were females and age between 1 month to 15 years old. The majority of the patients had leukemia (55.33%), neuroblastoma (9.19%), and lymphoma (7.90%). There were 340 patients (62.50%) with DRPs, 1,643 problems (68.86%) in total of 2,386 admissions. The most common DRPs were adverse drug reactions (ADRs) (80.10%). The parts of ADRs, the most problems were fever (45.06%), nausea and vomiting (22.34%), and mucositis (14.97%). Pharmacist's interventions to patients included resolving or preventing of ADRs (90.24%) and improving compliance (9.76%). Pharmacist's interventions to physician included suggesting medications (48.93%) for untreated symptoms, discontinuing unnecessary medication (25.69%), and adjusting dosage regimen (18.65%).

**Conclusion:** With collaboration of multidisciplinary approach, pediatric cancer patients could receive better patient care to minimize ADRs and prevent risk of potential DRPs.