

Analysis of Antidote Availability and Use in Emergency Department of Malaysian Government Hospitals

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Introduction : Emergency department is often the first place victims of poisoning and drug overdose will visit. Prompt medical intervention is needed to overcome significant morbidity and mortality. In certain circumstances, the availability of antidotes is essential and often lifesaving. **Objective :** To determine the types of poisoning and drug overdose often reportedly seen at the emergency department as well as the kind of antidotes often kept and used. **Methods :** In April 2008, a questionnaire survey was sent to medical officer-in-charge from 132 emergency departments of government hospitals throughout Malaysia asking them about a wide range of questions including types of staffing, types of services provided, types of poisoning encountered, availability of decontamination and life-support instruments as well as antidotes and other supportive medications kept.

Results : A total of 76 emergency departments completed the questionnaires. Of these, 64 (83%) were emergency departments of district hospitals, 11 (14.3%) from general hospitals while only one (1.3%) from university hospital. Three common groups of poisoning encountered include animal toxins, pesticides including paraquat, organophosphates/carbamates, pyrethroids as well as household chemicals. The range of antidotes kept in the emergency department differed from one another but the types of antidotes kept include in order of highest frequency, atropine sulphate (96.1%), calcium gluconate (89.6%), flumazenil (77.9%), polyvalent antivenom (75.3%), n-acetylcysteine (74%), pyridoxine (70.1%), pralidoxime (46.8%), desferrioxamine (74%), glucagon (23%), sodium nitrite and sodium thiosulphate (15.6%), digoxin immune Fab (10.4%), calcium sodium edetate (6.5%) and dimercaprol (5.2%). A detailed analysis of the data to examine appropriateness of antidotes kept as well as issues of adequacy will be addressed in this presentation.