



IASP Special Interest Group (SIG) on the Prevention of Intentional Pesticide Poisoning

Bibliography: Topic - Health Services

Cha, E. S., Y. H. Khang, et al. (2014). "Mortality from and Incidence of Pesticide Poisoning in South Korea: Findings from National Death and Health Utilization Data between 2006 and 2010." *PLoS One* **9**(4): e95299.

Pesticide poisoning has been recognized as an important public health issue around the world. The objectives of this study were to report nationally representative figures on mortality from and the incidence of pesticide poisoning in South Korea and to describe their epidemiologic characteristics. We calculated the age-standardized rates of mortality from and the incidence of pesticide poisoning in South Korea by gender and region from 2006 through 2010 using registered death data obtained from Statistics Korea and national healthcare utilization data obtained from the National Health Insurance Review and Assessment Service of South Korea. During the study period of 2006 through 2010, a total of 16,161 deaths and 45,291 patients related to pesticide poisoning were identified, marking respective mortality and incidence rates of 5.35 and 15.37 per 100,000 population. Intentional self-poisoning was identified as the major cause of death due to pesticides (85.9%) and accounted for 20.8% of all recorded suicides. The rates of mortality due to and incidence of pesticide poisoning were higher in rural than in urban areas, and this rural-urban discrepancy was more pronounced for mortality than for incidence. Both the rate of mortality due to pesticide poisoning and its incidence rate increased with age and were higher among men than women. This study provides the magnitude and epidemiologic characteristics for mortality from and the incidence of pesticide poisoning at the national level, and strongly suggests the need for further efforts to prevent pesticide self-poisonings, especially in rural areas in South Korea.

Chang, S. S., J. A. Sterne, et al. (2010). "'Hidden' suicides amongst deaths certified as undetermined intent, accident by pesticide poisoning and accident by suffocation in Taiwan." *Soc Psychiatry Psychiatr Epidemiol* **45**(2): 143-152.

OBJECTIVE: To identify cause-of-death categories in which suicides might be misclassified in Taiwan. **METHODS:** We plotted secular trends (1971-2007) in sex- and method-specific rates of deaths classified as suicide, undetermined intent and accident for the Taiwanese population aged 15+ and compared the sex, age and marital status profiles of deaths in these three categories by method of death. **RESULTS:** The demographic profiles of registered suicides generally resembled those for deaths of undetermined intent and accidents by pesticide poisoning/suffocation but differed from those for accidents from non-pesticide poisoning/drowning/falling/poisoning by non-domestic gas. For the period 1990-2007, suicide rates based on suicides alone (14.8 per 100,000) would increase by 23, 7 and 1%, respectively, when including deaths of undetermined intent, accidental pesticide poisonings and accidental suffocations. **CONCLUSIONS:** Suicide rates may be underestimated by more than 30% in Taiwan because some suicides are 'hidden' amongst deaths certified as due to other causes.

Eddleston, M., K. Sudarshan, et al. (2006). "Patterns of hospital transfer for self-poisoned patients in rural Sri Lanka: implications for estimating the incidence of self-poisoning in the developing world." *Bull World Health Organ* **84**(4): 276-282.

OBJECTIVES: Most data on self-poisoning in rural Asia have come from secondary hospitals. We aimed to: assess how transfers from primary to

secondary hospitals affected estimates of case-fatality ratio (CFR); determine whether there was referral bias according to gender or poison; and estimate the annual incidence of all self-poisoning, and of fatal self-poisoning, in a rural developing-world setting. **METHODS:** Self-poisoning patients admitted to Anuradhapura General Hospital, Sri Lanka, were reviewed on admission from 1 July to 31 December 2002. We audited medical notes of self-poisoning patients admitted to 17 of the 34 surrounding peripheral hospitals for the same period. **FINDINGS:** A total of 742 patients were admitted with self-poisoning to the secondary hospital; 81 died (CFR 10.9%). 483 patients were admitted to 17 surrounding peripheral hospitals. Six patients (1.2%) died in peripheral hospitals, 249 were discharged home, and 228 were transferred to the secondary hospital. There was no effect of gender or age on likelihood of transfer; however, patients who had ingested oleander or paraquat were more likely to be transferred than were patients who had taken organophosphorus pesticides or other poisons. Estimated annual incidences of self-poisoning and fatal self-poisoning were 363 and 27 per 100,000 population, respectively, with an overall CFR of 7.4% (95% confidence interval 6.0-9.0). **CONCLUSION:** Fifty per cent of patients admitted to peripheral hospitals were discharged home, showing that CFRs based on secondary hospital data are inflated. However, while incidence of self-poisoning is similar to that in England, fatal self-poisoning is three times more common in Sri Lanka than fatal self-harm by all methods in England. Population based data are essential for making international comparisons of case fatality and incidence, and for assessing public health interventions.

Fleischmann, A., J. M. Bertolote, et al. (2005). "Characteristics of attempted suicides seen in emergency-care settings of general hospitals in eight low- and middle-income countries." *Psychol Med* **35**(10): 1467-1474.

BACKGROUND: The objective was to describe patients presenting themselves at emergency-care settings following a suicide attempt in eight culturally different sites [Campinas (Brazil), Chennai (India), Colombo (Sri Lanka), Durban (South Africa), Hanoi (Viet Nam), Karaj (Iran), Tallinn (Estonia), and Yuncheng, (China)]. **METHOD:** Subjects seen for suicide attempts, as identified by the medical staff in the emergency units of 18 collaborating hospitals were asked to participate in a 45-minute structured interview administered by trained health personnel after the patient was medically stable. **RESULTS:** Self-poisoning was the main method of attempting suicide in all eight sites. Self-poisoning by pesticides played a particularly important role in Yuncheng (71.6% females, 61.5% males), in Colombo (43.2% males, 19.6% females), and in Chennai (33.8% males, 23.8% females). The suicide attempt resulted in danger to life in the majority of patients in Yuncheng and in Chennai (over 65%). In four of the eight sites less than one-third of subjects received any type of referral for follow-up evaluation or care. **CONCLUSIONS:** Action for the prevention of suicide attempts can be started immediately in the sites investigated by addressing the one most important method of attempted suicide, namely self-poisoning. Regulations for the access to drugs, medicaments, pesticides, and other toxic substances need to be improved and revised regulations must be implemented by integrating the efforts of different sectors, such as health, agriculture, education, and justice. The care of patients who attempt suicide

needs to include routine psychiatric and psychosocial assessment and systematic referral to professional services after discharge.

Gupta, S. K., S. S. Peshin, et al. (2003). "A study of childhood poisoning at National Poisons Information Centre, All India Institute of Medical Sciences, New Delhi." J Occup Health **45**(3): 191-196.

A retrospective analysis of the poisoning calls received by the National Poisons Information Centre (NPIC) showed a total of 2,720 calls during a period of three years (April 1999-March 2002). Poisoning in children was reported in 995 calls (36.6%). The age ranged from less than 1 yr to 18 yr and the age groups involved were divided into four categories (0-6 yr, >6-12 yr, >12-16 yr, >16-18 yr). The most vulnerable age group included children from less than one year to 6 yr old. Males outnumbered females (M=628, F=367). Although the accidental mode was the commonest (79.7%), intentional attempts were also noticed (20.2%) in the >12-16 yr and >16-18 yr age groups. In the majority of cases, the route was oral (96.8%) followed by dermal exposure (3.2%) comprising bites and stings. Various types of agents belonged to classes of household products (47.0%), drugs (21.8%), industrial chemicals (7.9%), agricultural pesticides (9.1%), bites and stings (3.2%), plants (1.5%), miscellaneous products (5.3%) and unknown products (4.0%). The incidence of poisoning was highest due to household products comprising mainly pyrethroids, paraquat/thermometer mercury, rodenticides, phenyl, detergents and corrosives, etc. Poisoning due to drugs mainly included anticonvulsants, thyroid hormones, benzodiazepines, analgesics and oral contraceptives. Among the agricultural pesticides aluminium phosphide was the most commonly consumed, followed by organochlorines and organophosphates, etc. Paint thinners were common among industrial chemicals. Bites and stings were mainly snake bites and scorpion stings. Poisoning due to plants was low and *Datura* was commonly ingested. Although these data may not give an exact picture of the incidence rate in our country, due to underreporting of calls to the Centre and because the actual incidence might be higher or even variable, but they do give the trend in India, indicating that a strong emphasis should be placed on a prevention campaign which can at least reduce the occurrence of accidental pediatric poisoning.

Kervegant, M., L. Merigot, et al. (2013). "Paraquat poisonings in France during the European ban: experience of the Poison Control Center in Marseille." J Med Toxicol **9**(2): 144-147.

Paraquat, a widely used herbicide in the world, has caused severe and fatal poisonings. Because of its high toxicity, the European Union withdrew paraquat from its market in July 2007. The purpose of this report is to describe cases of paraquat poisoning recorded at the Poison Control Center in Marseille over the 9-year period starting and ending 4.5 years before and after the paraquat ban. Data analysis showed that the most severe exposures were linked to ingestion. The fatality rate of deliberate consumption was near 50 % (34 suicide attempts and 15 deaths). Our data showed a marginal decline in total number of poisonings observed after the paraquat ban (38 vs 33 after the ban) mostly due to a decrease in the number of unintentional exposure (21 vs 16 after the ban). However, there

was no apparent change in the number suicidal attempts using paraquat. Regarding geographical distribution, data showed that most poisonings in mainland France were unintentional, while poisonings in overseas French territories were mostly voluntary. Despite the European ban and the preventive measures, paraquat continues to contribute to severe and life-threatening poisonings in Southeastern and overseas France.

Lee, H. L., H. J. Lin, et al. (2008). "Presentations of patients of poisoning and predictors of poisoning-related fatality: findings from a hospital-based prospective study." *BMC Public Health* **8**: 7.

BACKGROUND: Poisoning is a significant public health problem worldwide and is one of the most common reasons for visiting emergency departments (EDs), but factors that help to predict overall poisoning-related fatality have rarely been elucidated. Using 1512 subjects from a hospital-based study, we sought to describe the demographic and clinical characteristics of poisoning patients and to identify predictors for poisoning-related fatality. **METHODS:** Between January 2001 and December 2002 we prospectively recruited poisoning patients through the EDs of two medical centers in southwest Taiwan. Interviews were conducted with patients within 24 hours after admission to collect relevant information. We made comparisons between survival and fatality cases, and used logistic regressions to identify predictors of fatality. **RESULTS:** A total of 1512 poisoning cases were recorded at the EDs during the study period, corresponding to an average of 4.2 poisonings per 1000 ED visits. These cases involved 828 women and 684 men with a mean age of 38.8 years, although most patients were between 19 and 50 years old (66.8%), and 29.4% were 19 to 30 years. Drugs were the dominant poisoning agents involved (49.9%), followed by pesticides (14.5%). Of the 1512 patients, 63 fatalities (4.2%) occurred. Paraquat exposure was associated with an extremely high fatality rate (72.1%). The significant predictors for fatality included age over 61 years, insufficient respiration, shock status, abnormal heart rate, abnormal body temperature, suicidal intent and paraquat exposure. **CONCLUSION:** In addition to well-recognized risk factors for fatality in clinical settings, such as old age and abnormal vital signs, we found that suicidal intent and ingestion of paraquat were significant predictors of poisoning-related fatality. Identification of these predictors may help risk stratification and the development of preventive interventions.

Paholpak, P., P. Rangseekajee, et al. (2012). "Characteristics and burden of hospitalization because of intentional self-harm: Thai national, hospital-based data for 2010." *J Med Assoc Thai* **95 Suppl 7**: S156-162.

BACKGROUND: There is a paucity of data on intentional self-harm and suicide in Thailand. It is crucial to re-evaluate the burden and health outcomes. **OBJECTIVE:** To measure the character and burden of acts of intentional self-harm in the Thai hospitalized population. **MATERIAL AND METHOD:** Acts of intentional-self harm were categorized using ICD 10 classification. All of inpatient-related data were analyzed using SPSS 17. **RESULTS:** Overall intentional self-harm in 2010 led to 24,924 hospitalizations and 854 deaths; an incidence of 35.6/100,000 people with the highest level in two age groups: 18-25 and 26-40 year-olds. Self-poisoning (89%) was the most common method and pesticide was the

leading used chemical agents. The total cost of treatment was 149,672,190 baht and the mean length of stay was 2.9 +/- 6.7 days. The mortality rate increased as the population got older with the highest rate being 10.6% for 70-79 year-olds. In 33.8% of cases, psychiatric co-diagnosis were found with anxiety disorders was the leading comorbidity. CONCLUSION: The incidence of intentional self-harm was medium to high, compared to other East Asians countries. Self-poisoning by exposure to pesticides was the most common self-harm method. Age over 60 had the highest mortality rate. Having a psychiatric co-diagnosis was common.

Peshin, S. S., A. Srivastava, et al. (2014). "Pesticide poisoning trend analysis of 13 years: a retrospective study based on telephone calls at the National Poisons Information Centre, All India Institute of Medical Sciences, New Delhi." J Forensic Leg Med **22**: 57-61.

The study was designed to analyze the incidence and pattern of pesticide poisoning calls reported to the National Poisons Information Centre (NPIC), AIIMS, New Delhi and highlight the common classes of pesticides involved in poisoning. The telephone calls received by the Centre during the thirteen year period (1999-2012) were entered into a preset proforma and then into a retrievable database. A total of 4929 calls of pesticide poisoning were recorded. The data was analyzed with respect to age, gender, mode and type of poisoning. The age ranged from 1 to 65 years with the preponderance of males (M = 62.19%, F = 37.80%). The age group mainly involved in poisoning was 18-35 years. While 59.38% calls pertained to household pesticides, 40.61% calls related to agricultural pesticides. The common mode of poisoning was intentional (64.60%) followed by accidental (34.40%) and unknown (1%). Amongst the household pesticides, the highest number of calls were due to pyrethroids (26.23%) followed by rodenticides (17.06%), organophosphates (6.26%), carbamates (4.95%) and others (4.86%). In agricultural pesticides group, the organophosphates (9.79%) ranked the first followed by, aluminium phosphide (9.65%), organochlorines (9.31%), pyrethroids (3.87%), herbicides, weedicides and fungicides (3.20%), ethylene dibromide (2.82%), and others (1.70%). The data analysis shows a high incidence of poisoning due to household pesticides as compared to agricultural pesticides, clearly emphasizing the need for creating awareness and education about proper use and implementation of prevention programmes.

Rajasuriar, R., R. Awang, et al. (2007). "Profile of poisoning admissions in Malaysia." Hum Exp Toxicol **26**(2): 73-81.

We retrospectively reviewed poisoning admissions to all government health facilities from 1999 to 2001, in an effort to expand our current knowledge on poisoning in Malaysia to a level that better reflects a nationwide burden. There were 21 714 admissions reported with 779 deaths. The case-fatality rate was 35.88/1000 admissions. The majority of admissions (89.7%) and deaths (98.9%) occurred in adults. Some 55.1% of all admissions were female, mostly involving pharmaceutical agents. Male poisoning admissions were more often due to chemical substances. The prevalence of poisoning and death was highest among Indians compared to all other races in Malaysia. Overall, the majority of poisoning admissions were due to

pharmaceutical agents, with agents classified as non-opioid analgesics, anti-pyretics and anti-rheumatics the most common. Pesticides accounted for the largest number of fatalities. It was also the commonest substance reported in cases of intentional self-harm. Most cases of poisoning admissions occurred due to accidental exposure (47%), followed by cases of intentional self-harm (20.7%). Overall, this study has managed to contribute substantial additional information regarding the epidemiology of poisoning in Malaysia, highlighting important issues, such as the rampant poisonings involving pesticides and analgesics, as well as the high prevalence of poisoning among Indians in Malaysia.

Ramanath, K. V. and H. D. Naveen Kumar (2012). "Study the assessment of poisoning cases in a rural tertiary care teaching hospital by a clinical pharmacist." Asian Journal of Pharmaceutical and Clinical Research **5 (2)**: 138-141.

Background: Mortality of Poison with various substances is common everywhere. Various agents such as pesticides, drugs have been used intentionally/accidentally as a poisoning in different countries. In the Indian scenario, pesticides are the most commonly used poisoning agents. Management of poisoning is one of the biggest challenges, faced by the health care professionals globally. Clinical pharmacist can play an important role in the management of poisoning. Objective: To assess the poisoning cases admitted to the rural tertiary care hospital. Methodology: A prospective, observational study was carried out in emergency department for a period of 9 months in Adichunchanagiri hospital and research center. Results: A total of 73 poisoning admissions were identified during the study period. Among them male population are more i.e 63.0% compare to females 37.0%. Majority of victims belonged to age group of 21-40 years. Intentional Poisoning was observed in 80.8% followed by accidental poisoning 19.2%. Among the poisoning cases pesticide exposures was observed in 57.5% followed by bites i.e. 13.6%, household products 8.3%, and medicine 5.6% and miscellaneous were 15%. The treatment assessment results showed that appropriateness with specific treatment was 78.7% and remaining 21.3% were not received the specific appropriate treatment. Therapeutic outcome results showed 59 (80.8%) were recovered, mortality was observed in 9 (12.3%), discharge against medical advice was 4 (5.5%) and 1 (1.4%) patient was recommended for higher center. During study period eight poison information queries was provided to the requestor. A poison treatment guideline also developed/prepared to manage the poisoning cases. Conclusion: Clinical pharmacist intervention in the poisoning management will reduce the mortality and it will improve the therapeutic outcome. The most poisoning cases were observed with a pesticide which was handled by the farmers in the agriculture fields.

Shadequl-Islam, A. H. M., A. Basher, et al. (2012). "Pattern of pre-hospital treatment received by cases of pesticide poisoning." International Journal of Medical Toxicology and Forensic Medicine **2 (3)**: 88-96.

Background: Prehospital treatment following acute pesticide poisoning is not optimal and mortality following such poisoning is high in Bangladesh. Method: It was a prospective study in which pattern of prehospital treatment received and outcome of pesticide poisoned patient were studied at one

adult medical unit of Dhaka Medical College Hospital from October 2005 to June 2006. Results: The number of cases of pesticide poisoning were 60 (1.98%) of 3030 admitted patients. The mean age was 24.7+8.8 years. Most of them (40, 66.7%) were male. The incidence of poisoning was high among students (11, 18.3%) and housewives (10, 16.7%). The most common cause of poisoning was intentional (55, 91.7%). Familial disharmony was underlying cause in 27 (45%) patients. More than half of the patients (41, 68.3%) purchased the poison self. 25 (41.7%) patients got first contact with physician within 30 minutes of poisoning. In majority cases (45, 75%) first contact health care provider was government hospital. Only 22 (36.7%) patients received first aid before arrival to present hospital. Among them, 19 (31.7%) patients received induced vomiting by ingestion of tamarind water or lemon water or soap water or putting finger or other substances (cow dung, human excreta etc.) in mouth and 3 (15%) patients received home remedy like milk, raw egg etc. The overall mortality was 16.7%. Conclusion: Measures should be taken to increase the awareness among general population regarding the first aid following pesticide poisoning. 2012 Forensic Medicine and Toxicology Department.

Tagwireyi, D., D. E. Ball, et al. (2006). "Toxicoepidemiology in Zimbabwe: pesticide poisoning admissions to major hospitals." *Clin Toxicol (Phila)* **44**(1): 59-66.

BACKGROUND: Acute pesticide poisoning (APP) is a well-recognized cause of morbidity and mortality but is not well described in developing countries. We describe the toxicoepidemiology of APP in Zimbabwe. METHODS: All cases of APP admitted to eight major referral hospitals in Zimbabwe from January 1998 to December 1999 (inclusive) were identified using ICD-9 codes and ward registers and relevant information recorded on a standard data collection sheet. RESULTS: There were a total of 914 single pesticide exposures. Almost half (49.1%) resulted from oral exposure to rodenticides, 42.2% from anticholinesterase-type pesticides (AChTP), mostly organophosphates (OP) that were responsible for over 90% of admissions from AChTP. Accidental and deliberate self-poisoning (27.1% and 58.6%, respectively) accounted for most cases with only eight homicides. The case fatality rate (CFR) in deaths/100 admissions was 6.8 [62 deaths; 95% Confidence Interval (CI) 5.2-8.6] and was significantly higher in males (9.4) than females (4.1) (CI for difference in proportions; 2.0-8.5). In addition, the CFR for deliberate self-poisoning (DSP), 6.5 deaths/100 admissions, was also significantly higher than that for accidental poisoning (0.8 deaths/100 admissions) (CI for difference in proportions 3.2-7.9). Organophosphates were implicated in 70.9% of all fatalities, with over 20% resulting from oral exposure to rat poison (RP). CONCLUSION: Organophosphates and rat poison (RP) are the leading causes of APP admissions to major referral hospitals in Zimbabwe, with most of the admissions being the result of deliberate self-poisoning. Greater control in the sale and use of these products could help prevent significant morbidity and mortality.

Thomas, M., S. Anandan, et al. (2000). "Profile of hospital admissions following acute poisoning--experiences from a major teaching hospital in south India." *Adverse Drug React Toxicol Rev* **19**(4): 313-317.

This study was conducted to determine the incidence of hospital admissions following acute poisoning, nature of agents involved and change in pattern of poisoning over a 5-year period. Data from hospital records of all admissions to emergency department following acute poisoning collected prospectively were analysed for the period January 1993 to January 1998. A steady increase in deliberate poisoning using pesticides, particularly among young adults, was noted. Kerosene (paraffin) was the commonest poison in children and plant poisons were also common. There were 52 deaths (3.3%) among the 1584 admissions. The majority of deaths were due to pesticides. Poisoning and mortality followed ingestion of readily-available and commonly used agents. Measures to increase public education, counselling and awareness could prevent a number of these admissions.

Tufekci, I. B., A. Curgunlu, et al. (2004). "Characteristics of acute adult poisoning cases admitted to a university hospital in Istanbul." Hum Exp Toxicol **23**(7): 347-351.

BACKGROUND: The aim of this retrospective study was to analyse the characteristics of acute adult poisoning cases admitted to a university hospital in Istanbul, Turkey. **PATIENTS AND METHODS:** All cases admitted to the Emergency Unit of the Istanbul University Cerrahpasa Medical Faculty Hospital, between January 2001 and December 2001, were included in this study. We analysed the clinical charts for aetiological and demographical characteristics of the acutely poisoned patients. **RESULTS:** There were 284 poisoning cases (207 females and 77 males) among 11834 patients admitted to the Emergency Unit. This was 2.4% of all emergency admissions. The female-to-male ratio was 3:1. The mean age was 27+/-12 years (age range 15-87) and the majority of the patients (73.94%) were below the age of 30 years. The median age was 24 years. Medicinal drugs were the major cause (69.37%) of the cases, followed by inhalation of gases (14.44%), alcohol (5.99%), alcohol together with illicit drugs (4.23%), food (3.17%), corrosives (1.76%) and pesticides (1.06%). The route of administration was as follows: 84.51% orally, 14.44% by inhalation and 1.06% by intravenous injection. Seventy-one per cent of acute poisonings were self-inflicted and 88% occurred at home. The most frequently involved medicinal drugs were antidepressants and analgesics. In 32.04% of cases, there was more than one medicinal drug responsible for the poisoning. The seasonal distribution in poisoning patients suggested a peak in summer (31.7% of presentations) and winter (30.9%) and lower numbers in spring (22.9%) and autumn (14.5%). The follow-up period of the patients were 1-12 hours for 42 cases (15%), 13-24 hours for 134 cases (47%) and more than 24 hours for 108 cases (38%). Two of the 284 cases with acute poisonings were fatal. This was a university hospital-based study, so these results may not be representative of the general population. Despite this drawback, these data still provide important information about the characteristics of poisoning in the largest city of the country. cn

Wickramasinghe, K., P. Steele, et al. (2009). "Cost to government health-care services of treating acute self-poisonings in a rural district in Sri Lanka." Bull World Health Organ **87**(3): 180-185.

OBJECTIVE: To estimate the direct financial costs to the Sri Lanka Ministry of Health of treating patients after self-poisoning, particularly from pesticides,

in a single district. **METHODS:** Data on staff, drug, laboratory and other inputs for each patient admitted for self-poisoning were prospectively collected over a one-month period from one general hospital (2005) and five peripheral hospitals (2006) in the Anuradhapura district. Data on transfers to secondary- and tertiary-level facilities were obtained for a 6-month period from 30 peripheral hospitals. The cost of the inputs in United States dollars (US\$), using 2005 figures, was derived from hospital accounts. **FINDINGS:** The average total cost of treating a self-poisoned patient at the general hospital was US\$ 31.83, with ward staff input and drugs being the highest expenditure category and only US\$ 0.19 of this sum related to capital and maintenance costs. The average total cost of treatment was highest for self-poisoning with pesticides (US\$ 49.12). The patients placed in the intensive care unit, who comprised 5% of the total, took up 75% of the overall treatment cost for all self-poisoned patients at the general hospital. The average total cost of treating self-poisoned patients at peripheral hospitals was US\$ 3.33. The average patient cost per transfer was US\$ 14.03. In 2006, the total cost of treating self-poisoned patients in the Anuradhapura district amounted to US\$ 76,599, of which US\$ 53,834 were comprised of pesticide self-poisonings. Based on the total treatment cost per self-poisoned patient estimated in this study, the cost of treating self-poisoned patients in all of Sri Lanka in 2004 was estimated at US\$ 866,304. **CONCLUSION:** The cost of treating pesticide self-poisonings may be reduced by promoting the use of less toxic pesticides and possibly by improving case management in primary care hospitals. Additional research is needed to assess if increasing infrastructure and staff at peripheral hospitals could reduce the overall cost to the government, optimize case management and reduce pressure on secondary services.