

Costs to Government Health Care Services of Pesticide Self-poisoning Treatments in Sri Lanka

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Objective: The objective of the study was to calculate the financial costs to the Sri Lankan government of treating self-poisoning patients with a focus on pesticide self-poisoned patients. **Methods:** The study was carried out in Anuradapura district of Sri Lanka. Detailed data on all inputs required for the treatment and care for patients hospitalized at Anuradapura general hospital and five peripheral hospitals were obtained over a one month period. Transfer costs of patients were calculated based on transfers from 30 peripheral hospitals in the district to Anuradapura hospital covering a six month period. Information was used to generate an estimated cost for a full year. Likewise, costs of inputs were estimated based upon 2006 prices. The total treatment cost includes four cost categories namely ward care staff costs, investigation costs, drug costs, and non-drug treatment costs. Per patient capital and maintenance cost was calculated by dividing the total annual capital and maintenance cost by the total number of all admissions over the year. Transfer costs were calculated based on the patient outcome and transfer information collected from 30 peripheral hospitals. **Results:** The total cost of treating all self-poisoning patients in Anuradapura district is USD76,339. The total cost of treating pesticide self-poisoned patients in Anuradapura district in 2006 is USD66494 (Table 1), which accounts for 2.3% of annual provincial health budget. The average cost of treatment is the highest for self-poisoning with pesticides (50USD), compared with other poison types (medicine 9USD, plant seeds - 5USD). The average treatment cost for pesticide self-poisoning patients is much lower in peripheral hospitals (4USD) than in general hospitals. The mean cost of ward staff input per pesticide poisoning patient was the highest expenditure category (USD13), followed by the cost of drugs (USD12), non- drug treatments (USD5) and investigations (USD2). Although around 6% of patients received ICU treatments, the cost of treating them was 75% of the total cost of treating all self-poisoning patients. The per patient costs are varied depending on the type of pesticide used for self harm (Figure 1). The average cost of transfers is USD14 per transfer. **Conclusion:** The cost of transfers from the peripheral hospitals is higher than the cost of treating patients in the peripheral hospitals (Table 1), supports decentralization of health care facilities for pesticide self- poisoned treatments.

Table 1: Estimated cost of treating pesticide self-poisoning patients in Anuradapura District, Sri Lanka (US\$)

Cost item	Per patient cost	Number of patients	Total cost
General hospital	49	1191	58,519
Peripheral hospital	4	682	2,521

Transfer cost	14	389	5,454
Total			66,494

Figure 1: Per patient treatment costs by pesticide type (US\$)

