

The Effectiveness of an Educational Intervention on Behaviour Change Among Health Care Providers on Gastrointestinal Decontamination Practices of Patients with Acute Ingestion of Poison

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Objective : To evaluate how effective is an educational intervention on behavioural change among health care providers on gastric decontamination practices in acute ingestion of poisons. **Methods :** A three months Prospective Randomized Controlled Trial with two parallel groups, one to receive the educational intervention on gastric decontamination and the other is the control group with no intervention was carried out in twelve primary care hospitals in Puttlam District in Sri Lanka. Data was collected retrospectively from medical records to establish rates of administration of forced emesis, gastric lavage and activated charcoal. Academic detailing using a short presentation on current gastric decontamination protocols ^(1,2) was carried out in the intervention hospitals. “Wallposters” were provided. The basis of the educational intervention was ‘The Management of Poisoning’ book ⁽³⁾, which was circulated among intervention and control hospitals. For validation of the data obtained in the peripheral hospitals, the history that was taken of the transfer patients to Chilaw (transfer sub group) was compared with the peripheral hospital notes. **Results:** 261 patients were seen during the study period.

	Intervention	Intervention	Control	Control
	Retrospective n = 66	Prospective n= 92	Retrospective n=32	Prospective n=71
Forced Emesis	27.3 %	3.3 %	40.6 %	52.1%
Gastric lavage	77.3 %	57.6 %	12.5%	19.7%
Activated Charcoal	27.2 %	52.2 %	21.8 %	35.2%

Out of 14 recorded complications following GI decontamination, “aspiration” (92%) was the commonest. (20% in the intervention compared to 80% in the control prospectively.). Chi Square test in the intervention shows $p=0.001$ in forced emesis, $p = 0.01$ in gastric lavage and $p = 0.002$ in activated charcoal. Hence, the proportion of change in the intervention is statistically significant as the $p < 0.05$. Comparison of proportion of activated charcoal among intervention and control shows $p < 0.03$, hence the change is statistically significant as $p < 0.05$. Comparison of proportions of activated charcoal in control shows $p = 0.17$, hence the change is statistically not significant. Transfer subgroup analysis showed similar results. **Conclusion:** The educational intervention has significantly changed behaviour among health care providers on gastric decontamination practices. Dissemination of information alone (The Management of Poisoning book) has not improved the practices significantly. Tools that address the barriers in implementing health policy in the workplace could be used for other interventions also. **References:** 1. Fernando R, Management of Poisoning 2007; 1-8. 2. Buckley NA, Eddleston M. The revised position papers on gastric decontamination. Clin Toxicol (Phila) 2005; **43**(2) : 129-130.