The essential training on aspects related to establishment and management of a poison information centre (PIC) was initially obtained at a well-established international PIC (Victorian Poisons Information Centre, Royal Children’s Hospital, Melbourne, Australia).

The PIC was successfully established at Department of Clinical Pharmacy, Mysore. In a specially designated area with essential infrastructure, facilities, and adequate information resources were created for the effective functioning of PIC. The essential information resources were acquired to provide poison information in an effective and timely manner. Policies and procedures were developed for effective functioning of PIC. Standard operating procedure was developed for provision of poison information. Toll free telephone number was obtained and e-mail was created to receive queries. Website and advertisement materials were designed to create awareness. A database containing essential information on locally available poisoning agents was developed and being used mainly for knowing the ingredients and for provision of poison information. Standard poison treatment protocols were prepared for common poisoning agents identified which are used as ready reference for provision of PIS. Electronic and printed PI documentation form, quality assessment checklist, feedback form and questionnaires were prepared to: a) record all the queries received by PIC; b) evaluate the quality of poison information service; and c) conduct educational/preventive programs respectively.

The awareness on PIC and its services was created by: a) publishing articles in leading English and Kannada newspapers; b) posting and distributing advertisement materials such as banners, posters, and pamphlets across Mysore city and 13
surrounding villages; c) Distributing the pamphlets among healthcare professionals working at various 9 hospitals, 30 primary healthcare centres, 30 clinics and 50 community pharmacies in and around Mysore; d) Addressing or conducting interactive sessions at various occasions (e.g., Suttur jatra festival, National Pharmacy Week, Pharma Rally, National Service Scheme activities, health camps, seminars, faculty development programs); and e) Addressing the students at 5 colleges and 15 schools located in and around Mysore city.

- A total of 804 patients were enrolled during the study period. The major cause of poisoning was found to be intentional or self-harm intent (81.1%). The study also indicated that the magnitude of poisoning was significantly ($P<0.05$) greater with pesticides (48.9%), followed by medicines (31%), household products (11.4%), bites and stings (7.7%), and food (1%). Among the pesticides, organophosphate (30.7%) was commonly used for poisoning. In case of medicines, Alprazolam (6.5%) was the most commonly used drug for poisoning, followed by paracetamol (5.8%) and non-steroidal anti-inflammatory drugs (NSAIDs) (4.1%). Moderate poisoning was observed with household products. In fact, poisoning with household products was accidental and occurred mainly in pediatric and young children population. Kerosene (4.4%) was more commonly used among all the household products. The results of epidemiological study based on patient data found that the age of the patients ranged from 1-70 years with a mean age of patients being $26.7 \pm 12.7$ years and male (473 (58.8%)) patients were significantly ($P<0.05$) higher when compared to female (331 (41.2%)). The poisoning incidences were significantly ($P<0.05$) higher in rural area (51.2%) when compared to urban (26.7%) or semi-urban (22.1%) areas. Notably,
considerable number of patients were illiterates (19.7%). In case of literates, a majority of patients had higher secondary education (23.5%), followed by secondary education (19.4%). Irrespective of type of poisoning, higher incidences occurred in middle and low socio-economic stratum.

- Overall, a majority of patients with mild to moderate predicted severity were recovered from the poisoning (improved category). On the other hand, patients with severe predicted illness were either discharged with severe illness or morbidity or expired. There was a significant association between the clinical outcome and scores of scoring systems (e.g., GCS and PSS). Further, the comparison of clinical outcome of poisoning (improved, discharged with severe illness, morbidity, and mortality) between different scoring systems (GCS, PSS, and SSS) at different point of study revealed. It was found that moderate correlation exist between GCS and PSS ($r = 0.51$, $P<0.05$), indicating excellent efficacy and similarity in scoring systems. These results indicate sensitivity and effectiveness of scoring systems as effective tools for determination of the severity in pesticides, medicines, household products and snake bite poisoning.

- A total of 654 poison information queries were received during 2011-2013. A majority ($P<0.05$) of them were received from doctors (78%), followed by general public and other healthcare professionals. The poison information service was provided mainly by verbal communication (74%). Importantly, for 51.8% of queries, poison information was provided immediately, while for 34.3% of queries the poison information was provided within 10-20 minutes. These results indicate efficiency of poison information centre.
The poison information services were provided in a timely and quality manner. In majority of cases the quality of service was rated as “Excellent” (79-86%), followed by “Very Good” (13-20%) and “Good” (0.6-1%). Importantly, the healthcare professionals appreciated the service as it helped them to provide optimal patient care and update their knowledge.

A deficiency in training programs for agricultural personnel to ensure safe use of pesticides is also common in India. Thirteen villages showing higher incidences of pesticide poisoning among agricultural population were selected for educational intervention. As hypothesized, the educational program made significantly beneficial impact (improved their KAP) on farmers as indicated by significantly improved KAP score during first follow-up (59.7 ± 2.6) and second follow-up (45.8 ± 4.1) when compared to baseline value (32.5 ± 5.3).

The services provided by the newly established poison information centre offered considerable direct healthcare outcome-related and healthcare cost-related benefits by: a) improving the acute management of poisoning (greater number of patients in improved category); b) reducing morbidity and mortality from poisoning (reduced the number of patients in these category); c) reducing the hospitalization time required for the acute management; and d) reducing the overall cost of treatment. The hospitalization time required for acute management was decreased considerably due to poison information service, thereby reducing the treatment cost for patients who received poison information service.
The poison information centre assists healthcare professionals in the management of poisoning by providing timely and accurate poison information. Poison information services contribute greatly in reducing morbidity, mortality and healthcare cost associated with poisoning and in minimizing accidental poisoning.