

ORAL 18 [ID#126]

Integrating Telemedicine in Assisting Poison Center Service: LINE Application

Suthimon Thumtecho^{1,2}, Punnaphat Daraswang^{1,2}, Kawin Isariyaopas³, Panee Rittilert², Sahaphume Srisuma^{1,2}

1. Department of Internal Medicine, Ramathibodi Hospital, Mahidol University, Thailand

2. Ramathibodi Poison Center, Ramathibodi Hospital, Mahidol University, Thailand

3. Department of Outpatient, Police General Hospital, Thailand

BACKGROUND: LINE, a popular mobile chat application, is considered another platform of telemedicine. Ramathibodi Poison Center (RPC) has applied LINE to provide consultation nationwide, in adjunct to hotline service.

METHODS: This retrospective cross-sectional study includes cases with adjunct LINE consultation called to RPC during 16th November 2018 to 15th May 2019. Characterization of LINE contacts was described in numbers of contacts and percentage.

RESULTS: There were 1,181 cases with 1,301 LINE contacts (average 217 contacts/month, distributing equally in a week). Most contacts occurred in morning shift (671 contacts, 51.41%). Most consultations were for paraquat poisoning (343 contacts, 34.16%), snake bites (153, 15.24%), organophosphate/carbamate poisoning (35, 3.49%), phosphide poisoning (30, 2.99%) and calcium channel blocker (CCB) poisoning (26, 2.59%). Reasons for consultation were for treatment (731 contacts, 44.14%), progress (584, 35.26%), substance or animal identification (173, 4.4%), diagnosis (73, 4.17%), and information of substances (69, 1.57%). There were 1,030 attached documents sent to RPC via LINE including substance photos (164 documents, 15.92%), lab results (148, 14.37%), wound pictures (141, 13.69%), urine dithionite test (UDT) results (134, 13.01%), and snake photos (94, 9.13%).

There were 1,049 responses from RPC via LINE including treatment (659 responses, 62.82%), substance or animal identification (173, 16.49%), and diagnosis (73, 6.96%). Treatment protocols were sent 600 times via LINE including protocols for paraquat (202 times, 33.67%), UDT method (100, 16.67%), whole bowel irrigation (WBI) method (26, 8.83%), CCB and phosphide treatment protocols (26, 4.33% and 25, 4.17% respectively).

More than one protocols was delivered in 33 contacts such as antivenom protocol with 20-minute WBCT method, phosphide with high-dose insulin and intravenous lipid emulsion protocols, WBI with iron poisoning treatment.

CONCLUSION: LINE application was used as an adjunct to conventional phone consultation service. Main uses of the application were for treatment suggestion and case follow-ups.