

Introduction:

Poisoning treatment requires faster access to antidote or other supportive medications. However, there are no guidelines about the storage of these drugs in hospital. To optimize their management, the OMEDIT of Upper Normandy (a Regional Health Observatory) made a directory of antidotes and emergency drugs and performed a regional inventory of these drugs in the hospital pharmacies.

Materials and methods:

This directory has been established from the data of Toxicology Centers, experts' recommendations and literature. For each medication, information about packaging, indications, dosages and routes of administration were recorded. Quantities of antidotes needed to treat a patient of 70 kg for 24 hours and time available before treatment (as suggested by the International Program on Chemical Safety) were proposed. An inventory was associated with the directory, in order to identify the antidotes and quantities available in hospital pharmacies and to specify the possibility of borrowing from another hospital.

Results:

39 drugs (28 antidotes and 11 emergency drugs) have been listed in the document.

9 of them had a "temporary use authorization".



DCI Spécialité Présentation	Conservation	Indication	Posologie / Administration	Délais de prise en charge thérapeutique	Quantité minimale (mg, g)	Quantité minimale (conditionnement)
Acide dimercaptosuccinique ou DMSA ou succimère Succicaptal Gélule 200 mg	T° ambiante Abri de la lumière et humidité	Intoxication par le plomb et le mercure	<u>Adulte et enfant :</u> 10 mg/kg tres les huit heures pendant 5 jrs puis 10mg/kg tres les 12h pendant 14 jrs sans dépasser 1,8 g/j	< 6h	2.1 g	11 gélules

20 drugs had to be administered immediately or within 30 minutes after the poisoning

They must be available 24h/day in hospital pharmacy or stored in the emergency department

16 other antidotes or emergency drugs had to be available as soon as possible or within 2 to 6 hours after intoxication.

Among 33 regional questioned hospital pharmacies (HP), 20 participated to the regional inventory of antidotes and emergency drugs. This inventory highlighted different availability of these drugs, due to the hospital's activity and antidote's specificity :

Drugs	Number of HP
Flumazenil, Isoprenaline, Glucagon, Naloxone, protamine sulfate, diazepam, N-Acetylcysteine...	> 15
Hydroxycobalamine, Dantrolene, N-Acetylcysteine, Desferal, sandostatine, danaparöide...	10 to 15
Dimercaprol, Pralidoxime...	5 to 10
EDTA, Digibind, Ethanol, Fomepizole, Ipeca...	< 5
Dexrazoxane (indicated in the urgent care of anthracycline extravasation)	1
Drugs with Temporary Use Authorization (Methylthionium chloride, Argatroban, Lorazepam, Ribavirine...)	1
DMSA (dimercaptosuccinique acid)	0

Quantities of antidotes available in hospital pharmacies are often less important than quantities needed to treat a patient of 70 kg for 24 hours :

	Naloxone	Pralidoxime
drug's availability	19 HP	8 HP
drug's availability with quantities needed to treat a patient of 70 kg for 24 hours	3 HP	0 HP

CONCLUSION

This directory, written to improve the management of poisoned patients, has to be adapted to each hospital according to its activities and proximity to other hospital. Some antidotes with significant economic impact (for a hypothetical use) are subject to a regional reflection about pooling these drugs over a health territory, while respecting the time available to treat.