

Supplementary Materials

Table 1a. Patient demographics and poisoning characteristics.

Characteristics	Components of each characteristic	Intensive Care Unit (N=131)	High Dependency Unit (N=114)	Total Numbers
Gender, No. (%)	Male	79(60.3)	74(64.9)	153
	Female	52(39.7)	40 (35.1)	92
Reason for exposure				
Reason for exposure	Deliberate Self Harm or Intentional	69	51	120
	Drug Abuse	31	38	69
	Accidental	09	4	13
	Unintentional OD	12	16	28
	Others/Unknown	10	5	15
Routes of Exposures				
Routes of Exposures	Oral	119	108	227
	Inhalational	06	5	11
	Intravenous	02	1	3
	Oral & Inhalational	01	2	3
	Unknown (Others)	03	2	5
Certainty of Poisoning				
Certainty of Poisoning	4, Definite	81	70	151
	3, Probably	36	35	71
	2, Possible	14	9	23
Poison Class distribution				
Poison Class distribution	Benzodiazepines	36	55	91
	Anti-Psychotic Medications	31	28	59
	Anti-Depressants	27	42	69
	Opioids	24	28	52
	Antihistamines	16	27	43
	Cardio toxic Drugs	17	12	29

Stimulants & Sympathomimetic	12	16	28
Non-Opioid Analgesics	15	10	25
Anti-Epileptics	13	16	29
Drug Withdrawal Syndrome	10	1	11
Alcohols including Ethanol	10	9	19
Caustic Agents	7	4	11
Muscle Relaxants	6	4	10
Non-Benzodiazepine Sedatives	7	8	15
Unknown Medications and Poisons	6	1	07
Cellular Asphyxiants including Cyanide	3	1	04
Anti-Diabetic and Oral Hypoglycaemic Agents	4	0	04
NMDA Antagonists	5	11	16
Toxic Essential Oils	1	0	01
Antibiotics and Anti-Viral Agents	1	1	02
Methylxanthines	2	3	05
Anti-Cholinergic	1	2	03
Hydrocarbons	1	0	01
Nitrites	1	0	01

	Nootropic	1	0	01
	Organophosphates	1	1	02
	Triptan	1	0	01
	Anti-Coagulants	1	2	03
	Novel Psychoactive Agents (NPS)	0	1	01
Serum Lactate levels				
		Intensive Care Unit	High Dependency Unit	
	Median Lactate levels in ED (N=37)	4.96 (2.93 - 11.56)	-	
	Median Lactate levels in ICU (N=39)	2.72 (1.78 - 4.91)	-	
	Median Lactate levels in ED (N=26)	-	2.98 (1.67 - 5.35)	
	Median Lactate levels in HD (N=18)	-	2.11 (1.47 – 2.38)	
	Agents with highest Lactate levels in ED	Cathinone and an Unknown Agent	-	
	Agents with highest Lactate levels in ICU	Methanol and an Unknown Agent	-	
	Agents with highest Lactate levels in ED	-	Methamphetamine & Amphetamine and Fluoxetine	
	Agents with highest Lactate levels in HD	-	Hydroxyzine, Quetiapine, Lamotrigine,	

			Mirtazapine and Methylphenidate, Ethanol	
pH levels		Intensive Care Unit	High Dependency Unit	
	Median pH levels in ED (N=44)	7.28 (7.38- 7.18)	-	
	Median pH levels in ICU (N=43)	7.32 (7.25- 7.36)	-	
	Median pH levels in ED (N=)	-	7.35 (7.33 – 7.38)	
	Median pH levels in HD (N=)	-	7.36 (7.34 – 7.36)	
APACHE II Scores (N=23)		Intensive Care Unit		
	Median Score	17 (12-26.5)		
	Highest Scores	Hydrogen Peroxide & Benzene Sulfonic Acid (41)		
		Methanol (36)		
Highest PSS Organ Systems involvement in ED	CNS	87	80	167
	CVS	36	29	65
	Renal	14	4	18
	GIT & Liver	11	6	17
	Respiratory	09	2	11
	Muscle	01	2	03
	Metabolic	08	4	12
	Hematological	00	01	01
	More than 1 Organ Systems equally affected	26	14	40

Highest PSS Scores in ED	3	99	54	153
	2	25	43	68
	1	7	17	24
Progression of initial ED PSS Scores	Progression	N=30	N=7	
	1----->2	0	1 ^D	
	1----->3	5 ^A	1 ^E	
	2----->3	12 ^B	5 ^F	
	3----->4	13 ^C	0	
<p>A: The implicated agents involved were Anti-Depressants, Drug Withdrawal Syndrome, Antihistamines, Anti-psychotic medications, Benzodiazepines, and non-Benzodiazepine sedatives.</p> <p>B: The implicated agents involved were Alcohols including Ethanol, Anti-Depressants, Anti-Epileptics, Antihistamines, Anti-psychotic medications, Benzodiazepines, Caustic Agents, Cellular Asphyxiants including Cyanide, Drug Withdrawal Syndrome, Opioids, and non-Opioid analgesics.</p> <p>C: The implicated agents involved were Alcohols including Ethanol, Anti-Depressants, Anti-psychotic medications, Cardio toxic Drugs, Caustic Agents, Opioids, and non-Opioid analgesics, Stimulants & Sympathomimetic agents, and some Unknown Medications and Poisons.</p> <p>D: The implicated agents involved were Opioids, Benzodiazepines, Anti-epileptics, and antihistamines.</p> <p>E: Drug Withdrawal.</p> <p>F: The implicated agents involved were Benzodiazepines, antihistamines, Opioids, anti-depressants, anti-psychotic medications, anti-viral, Anti-epileptics, muscle relaxants, NMDA antagonists and stimulants and sympathomimetic agents and non-opioid analgesics.</p>				

Table 1b. Therapeutic interventions.

Interventions	Components of each intervention	Intensive Care Unit	High Dependency Unit	Total Numbers
Gastrointestinal Decontamination	Total number of patients given gastrointestinal decontamination	29	11 ^A	40
	Activated charcoal only	24	10	34
	Gastric Lavage only	1	0	01
	Gastric Lavage + Activated Charcoal	3	0	03
	WBI	1	1	02
A-One patient with Fenthion (Organophosphate) Poisoning was administered non-Gastrointestinal decontamination via shower and wash.				
Intubation	Total number of Intubated patients	98	0	98
	Alcohols including Ethanol	8	0	08
	Antibiotics	2	0	02
	Anti-Cholinergic	1	0	01
	Anti-Depressants including TCAs	26	0	26
	Anti-Epileptics	11	0	11
	Antihistamines	16	0	16
	Anti-Psychotic Medications	29	0	29
	Benzodiazepines	43	0	43
	Cardiotoxic Drugs	12	0	12
	Caustic Agents	6	0	06
	Cellular Asphyxiants including Cyanide	6	0	06

	Drug Withdrawal Syndrome	9	0	09
	Hydrocarbons	1	0	01
	Methylxanthines	1	0	01
	Metformin	1	0	01
	Muscle Relaxants	5	0	05
	Nitrites	1	0	01
	NMDA Antagonists	3	0	03
	Non-Benzodiazepine Sedatives	4	0	04
	Non-Opioid Analgesics	12	0	12
	Nootropic	1	0	01
	Opioids	15	0	15
	Organophosphates	1	0	01
	Stimulants & Sympathomimetics	14	0	14
	Triptan	1	0	01
	Unknown Medications and Poisons	4	0	04
Vasopressors/Inotropes				
	Total number of patients requiring Vasopressors/Inotropes	46	10	56
	Single Agent	16	10	26
	Dual Agents	14	0	14
	More than two Agents	16	0	16
	Cardio toxins	16	5	21
	Benzodiazepines	12	3	15
	Anti-Depressants	10	2	12
	Opioids	7	4	11
	Anti-Psychotic Medications	7	3	10

	Non-Opioid Analgesics	6	2	08
	Stimulants & Sympathomimetic	4	0	04
	Antihistamines	3	1	04
	Caustic Agents	3	0	03
	Unknown Medications	3	0	03
	Anti-Epileptics	2	1	03
	Hypoglycaemic Medications	2	0	02
	Alcohols including Ethanol	2	0	02
	Drug Withdrawal Syndrome	2	0	02
	Antibiotics	2	0	02
	Muscle Relaxants	2	0	02
	Non-BZD Sedatives	1	0	01
	Hydrocarbons	1	0	01
	Nootropic	1	0	01
	Anti-Cholinergic Agents	0	1	01
HIET Therapy				
	Total number of patients requiring HIET	5	0	05
	Amlodipine	4	0	04
	Nifedipine	1	0	01
	Atenolol	1	0	01
	Non-Opioid Analgesics	2 ^A	0	02
A: 1 patient was exposed primarily to significant amounts of Amlodipine while another patient has ingested both Nifedipine and Atenolol. Both these patients had significant serum paracetamol levels concomitantly.				

Extracorporeal Life Support Measures including renal replacement therapy and ECMO	Total number of patients requiring CRRT/HD	22	5	27
	Pre-existing ESRD requiring regular HD	2	2	4
	CRRT/HD performed during hospitalization	20	3	23
	Cardiotoxic Drugs	8	0	08
	Alcohols including Ethanol	3	0	03
	Stimulants & Sympathomimetics	3	0	03
	Drug Withdrawal Syndrome	2	0	02
	Metformin	2	0	02
	Non-Steroidal Anti-Inflammatory Drugs (NSAIDs), Salicylate and Non-Opioid Analgesics	2	1 ^E	03
	Opioids	1	0	01
	Hydrocarbons	1	0	01
	Benzodiazepines	0	2 ^B	02
	Anti-Psychotic Medications	0	1 ^C	01
	Anti-Viral	0	1 ^D	01
	Anti-Depressants	0	1 ^B	01
	Non-Benzodiazepine Sedatives	0	1 ^B	01
	Total number of patients administered ECMO therapy	2 ^A	0	02

A: One patient has Quetiapine Toxicity while the second one has Amlodipine Toxicity.

B: Patient developed rhabdomyolysis with acute kidney injury with Oliguria. Another patient with Benzodiazepine exposure alone had pre-existing ESRD and was on regular haemodialysis.

C: Patient required dialysis due to significant Lithium exposure and poisoning.

D: Known ESRD on regular Hemodialysis

E: Developed Rhabdomyolysis, Acute Kidney Injury with Metabolic Acidosis and, underwent hemodialysis

Antidotes Usage	Intensive Care Unit (N=54)	High Dependency Unit (N=53)	
Naloxone	17	25	42
Sodium Bicarbonate	11	3	14
N-Acetyl Cysteine (NAC)	13	8	21
Flumazenil	7	8	15
Benzodiazepines	7	1	08
Calcium Gluconate	4	3	07
HIET	2	0	02
Methylene Blue	2	1	03
Digifab/Digi bind	1	1	02
Glucagon	2	1	03
Atropine	2	1	03
Pralidoxime	1	1	02
Physostigmine	0	2	02
Cyproheptadine	1	2	03
Idarucizumab (Praxibind)	0	1	01
Fomepizole	1	0	01
Hydroxocobalamin	1	0	01
Sodium Thiosulphate	1	0	01

Table 1c. Length of stay and outcomes.

Length of Stay (LoS)	Median LoS	41.30 Hours	33.3 hours	
	IQR	25.73 Hours – 75.21 Hours	21 Hours -48.1 Hours	
Disposition				
Disposition	Sites of Disposition	Intensive Care Unit (N=131)	High Dependency Unit (N=114)	Total Numbers
	Discharged Home	81	85	166
	Transferred to Institute of Mental Health-IMH (Long term Psychiatric Facility)	33	26	59
	Transferred to Other Hospitals	3 ^A	3 ^B	6
	Death	14	0	14
<p>A: 1 transferred to private hospital, 1 transferred to a rehabilitation hospital & 1 transferred to neurology intensive care unit in another hospital</p> <p>B: 1 patient was transferred to a Women’s Hospital and another two to a long-term rehabilitation hospital.</p>				
Agent(s) implicated in mortality				
Certainty of Poisoning				
Relative Contribution to Fatality (RCF)				
Paracetamol, Nifedipine, Atenolol	4 (Definite)	1 (Undoubtedly responsible)		
Amlodipine, Isopropyl Alcohol	4 (Definite)	1 (Undoubtedly responsible)		
Salicylate	4 (Definite)	1 (Undoubtedly responsible)		

Amphetamine	4 (Definite)	1 (Undoubtedly responsible)
Amitriptyline	4 (Definite)	2 (Probably responsible)
Ethanol	4 (Definite)	3 (Contributory)
Fluoxetine, Olanzapine, Fentanyl	4 (Definite)	2 (Probably responsible)
Quetiapine	4 (Definite)	1 (Undoubtedly responsible)
Nitrazepam ^A	4 (Definite)	4 (Probably not responsible)
Sotalol	3 (Probably)	3 (Contributory)
Unknown	3 (Probably)	3 (Contributory)
Hydrogen Peroxide, Benzene sulfonic acid	3 (Probably)	1 (Undoubtedly responsible)
Methanol (Toxic Alcohol)	3 (Probably)	3 (Contributory)
Unknown	2 (Possible)	4 (Probably not responsible)
<p>A: Patient presented with myocardial infarction, cardiogenic shock, acute pulmonary oedema, and severe metabolic acidosis. and APO. Coronary angiography showed unobstructed coronaries. Blood Toxicology showed presence of Nitrazepam which was unlikely to cause his symptoms and mortality.</p>		