Chapter 10

# Post-Disaster Psychotropic First Aid Kit

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## Introduction

People experiencing normal distress do not require special mental health interventions; instead, they need shelter, food, water, and safety as well as the rapid resolution of problems associated with the disaster (1). It is essential not to pathologize normal stress/emotional responses to disaster and not to provide specific mental health interventions that may not be helpful or that indeed may be harmful (e.g., psychological debriefing) (2).

As discussed in Chapter 9, psychiatric patients are potentially very vulnerable in disaster situations and may require special assistance following an event (5).

During a disaster or immediately afterwards, there may be lack of professional help (i.e., family doctors or physicians, nurses, counselors, psychologists, and psychiatrists) to assist individuals requiring treatment for mental disorders. Many Caribbean countries have an inadequate capacity to meet mental health needs under normal conditions; a disaster can severely overburden these resources. (5, 6). It is essential that available resources be directed to the areas of greatest need: people with pre-existing mental disorders, those showing substantial signs/symptoms of mental illness and other groups considered vulnerable (as identified in Chapter 9). There is some evidence that enhancing the mental health treatment competencies of health care providers can help mitigate the lack of specialized mental health services (7). For example, a training program for community health clinic staff in Grenada demonstrated effective and efficient treatment of individuals with mental disorders following Hurricane Ivan (see Box 10.1) (8).

During the immediate aftermath of a disaster, the priorities are to treat aggravated mental disorders and minimize interruptions in ongoing treatment. In preparing for disaster, it is necessary to ensure that essential medications used to treat mental disorders will be easily available. The majority of psychopharmacological treatments fall into one of the following categories: antidepressants, anti-psychotics, anxiolytics/hypnotics, anti-Parkinsonian, mood stabilizers, and anti-epileptics. Many of these medications are used to treat more than one type of illness and can be used to treat symptomatically as well. For example, antidepressants

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**Box 10.1**
**Mental health training assists in post-hurricane Grenada**

An innovative approach to addressing mental health needs following natural disasters in the Caribbean was implemented in the island country of Grenada. The training focused on enhancing the capacity of local, community-based health workers to provide immediate and continued mental health care following a natural disaster. Soon after this training, Hurricane Ivan (2004) struck the island. When surveyed about the effectiveness of the pre-disaster training, community health providers stated that they were able to effectively identify, intervene, and address post-disaster mental health needs in their communities. They stated that the care they provided for affected individuals continued beyond the immediate post-disaster period. This experience suggests that enhancing the capacity of local, community-based health providers to deal with post-natural disaster mental health needs may be a useful model (8).

are used to treat anxiety disorders, chronic headache, and fibromyalgia as well as depression; anxiolytics are used to treat insomnia, alcohol withdrawal, and seizures, including convulsive status epilepticus, as well as anxiety.[29]

Due to the multiple uses of these medicines, a post-disaster first aid psychotropic kit does not necessarily need to include all medications in each category. The minimum medication provision suggested by WHO is: one generic anti-psychotic; one anti-Parkinsonian drug (to deal with potential extra-pyramidal side effects); one anti- convulsive/antiepileptic; one anti-depressant and one anxiolytic (for use in substance withdrawal and convulsions). We suggest adding as well one mood stabilizer (5). Table 10.1 includes a modified list of the essential psychotropic medications proposed by WHO as being part of a Post-Disaster First Aid Kit. The table includes uses of the medications as well as doses and side effects to allow for ease of application.

29. It should be noted that in the past, benzodiazepines were commonly used following a disaster due to their potential to reduce anxiety and improve sleep; it is currently known that they may interfere with the cognitive processing needed to deal with the trauma and therefore they are not recommended for routine use (9).

**Table 10.1 Essential post-disaster psychotropic first aid kit**

| Drug class | Drug name | Uses (FDA approved and additional) | Initial dose (mg) | Dose range (mg/d) | Half life | Comments | Side effects |
|---|---|---|---|---|---|---|---|
| Antide-pressant | Amitriptyline Tablet 25 mg | Depression, anxiety disorders (i.e. PSTD), chronic pain, fibromyalgia. | 25 mg/d | 75–300 mg/d | 10–46 hrs | Initial dose may be divided or given as a single bedtime dose. | Dizziness or lightheadedness, drowsiness, confusion, constipation, difficulty urinating, dry mouth; discontinuation syndrome with abrupt discontinuation may occur. |
| Antipsy-chotic | Haloperidol Injection: 5 mg in 1-ml ampoule Tablet: 2 mg; 5 mg | Acute and chronic psychoses, acute mania, agitation/aggression, antiemetic, persistent hiccups, Huntington chorea, dementia-related behavioral problems. | 0.5– 3 mg/d | 3–20 mg/d | 12–36 hrs | Neuroleptic malignant syndrome is a life- threatening neurological disorder caused by an adverse reaction to haloperidol<br>Use with extreme caution in patients with Parkinson disease, movement disorders, seizures. | Blurred vision, constipation, dryness of mouth, sedation, unusual secretion of milk, weight gain<br>Serious side effects: Tardive dyskinesia (a movement disorder: uncontrolled movements of the mouth, tongue, jaw, or arms and legs). Neuroleptic malignant syndrome (severe muscle stiffness, fever, unusual tiredness or weakness, rapid heartbeat, difficult breathing, increased sweating, loss of bladder control, and seizures). |
| Anxiolytic/ hypnotic | Diazepam Tablet (scored): 2 mg, 5 mg Injection: 5 mg/ml in 2-ml ampoule<br><br>Gel or rectal solution: 5 mg/ml in 0.5 ml; 2-ml and 4-ml tubes | Anxiety, insomnia (acute), alcohol withdrawal, depression with comorbid anxiety, panic disorder, seizures, neuroleptic induced akathisia, behavioral problems in patients with mania or psychosis and catatonia, tremor, parkinsonism, muscle spasm, complications with hallucinogens or overdose of stimulants, pre-operative medication. | For seizures control: Adult: 5 mg IV Adolescent : 2.5 mg IV Pediatrics: 0.2 mg IV | For seizures control: Adult:5–20 mg IV Adolescent: 2.5–10 mg IV Pediatric 0.2–5 mg IV | 20–200 hrs | Long-term effects include tolerance, dependence as well as withdrawal syndrome.<br><br>Adjust dosing in older persons. | Drowsiness, fatigue, sedation, confusion, anterograde amnesia (especially at higher doses). |
| Anti-Parkinsonian | Biperiden Injection: 5 mg (lactate) in 1-ml ampoule. Tablet: 2 mg (hydrochloride) | Parkinson disease, extrapyramidal side-effects. | 1 mg/d | 2–12 mg/d | 24 hrs | Often can be tapered and discontinued after several weeks, without return of EPS. | Constipation, dry mouth, tachycardia, confusion, urinary retention, blurred vision. |

| Drug class | Drug name | Uses (FDA approved and additional) | Initial dose (mg) | Dose range (mg/d) | Half life | Comments | Side effects |
|---|---|---|---|---|---|---|---|
| Antiepileptic | Phenobarbital Injection: 200 mg/ml Oral liquid: 15 mg/5 ml Tablet: 15 mg to 100 mg | Generalized tonic-clonic, complex partial seizures; prevention of seizures relating to operative or traumatic neurological events | Child: up to 5 mg/kg daily Adolescent: 60–180 mg at night Adult: 1 mg/kg/d | Child: up to 5 mg/kg/d Adolescent: 60–180 mg at night Adult: 2–3mg/k/d | 53–118 hrs | Can be used in status epilepticus when a benzodiazepine has failed. Given at night time reduces drowsiness during the day. Has addiction potential. | Dry mouth, blurred vision, drowsiness, euphoria or disorientation, urinary retention, postural hypotension, constipation, agitation, disturbed behavior. |
| Mood stabilizer | Lithium Tablets or capsule: 300 mg | Acute treatment of mania, bipolar depression, prophylaxis in classical bipolar disorder | 300 mg Bid | 600–1800 mg/d | 20–26 hrs (longer with impaired renal function and in the elderly) | Measure serum lithium concentrations. Monitor renal and thyroid function. Maintain adequate fluid and sodium intake. | Nausea, vomiting, diarrhea, dry mouth, weight gain, fatigue, dizziness, fine hand tremor, poliuria, polidipsia, hypothyroidism, cognitive blunting, psoriasis, acne, alopecia, edema, teratogen. Toxicity: ataxia, vertigo, dysarthria, confusion, nystagmus. |

Notes: Compiled from: WHO, *Model Formulary* (2008);*16th WHO Model List of Essential Medicines* (2010); D, Gardner, J, Russell, S. Kutcher, *The Psychotropic Handbook* (2006); Kaplan & Sadock's *Handbook of Psychiatric Drug Treatment*. Third edition, 2001.
Bid = Twice a day; Tid = Three times a day.

The Post-Disaster Psychotropic First Aid Kit should include at least one medication from each of the five categories mentioned above and it should be distributed strategically over the entire health care system in order to be easily and equitably accessible in case of an emergency. The rapid access to essential psychotropic medications following a disaster may result in better outcomes for people with a previously diagnosed mental disorder. It will also allow health professionals to provide early interventions to those developing a mental disorder after the disaster. Along with access to the Post-Disaster Psychotropic First Aid Kit, it is essential to ensure that primary health care providers and other health services personnel providing post-disaster medical care have the necessary competency training to correctly use these medications. They should be capable of determining the following: initial dose; treatment target dose; dose titration; outcome monitoring; measurement of side effects; functional evaluation; treatment duration; and strategies for treatment discontinuation if warranted.

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