	MDMA	**LSD**	**Psilocybin**
Formulation	Capsule	Drinking solution	Capsule
Dose strengths	25 mg	10, 20, 25, 100 µg (base-equivalent)	5 mg Psilocybin (psilocybin dihydrate)
Active	3,4-Methylenedioxymethamphetamine · hydrochloride (MDMA · HCl)	d-Lysergic acid diethylamide (LSD) d-tartrate	psilocybin dihydrate
Dose range **Typical dose**	75-200 mg 100-125 mg	75-250 µg, microdosing: 5-15 µg 100 µg, microdose 10 µg	15-40 mg 20-25 mg
Storage condition	Room temperature (15 – 25°C), kept away from direct sunlight or any other sources of light, storage area should be dry, free from moisture.	Cold (2-8°C), kept away from direct sunlight or any other sources of light.	Cold (2-8°C), kept away from direct sunlight or any other sources of light.
Booster dose	50 mg after 2h prolongs acute effect by 2h but may produce more side effects esp. in women	no	no
Form	• MDMA hydrochloride 25 mg per capsule • dosing of MDMA in the literature is as MDMA hydrochloride	• dose is LSD base equivalent contained in the salt as LSD-tartrate (1:1) in water with 20% ethanol • 146 µg LSD tartrate = 100 µg LSD base • dosing of LSD in the literature may be as free base, LSD tartrate (1:1) or LSD hemi-tartrate (2:1)	• psilocybin dihydrate contains 89% psilocybin • dosing of psilocybin in the literature is as psilocybin dihydrate
Body weight	Dosing dependent on body weight: • 100 mg < 60 kg • 125 mg >60 kg	Weight-independent dosing	Weight-independent dosing

Sex	Dosing dependent on sex: • women: 100 mg • men: 125 mg • or use weight adjustment	No adjustment by sex	No adjustment by sex
Age	Adjust in elderly persons: • > 75 yr: 100 mg	No adjustment to age	No adjustment to age
2D6 poor metabolizer / strong CYP2D6 inhibitor	Reduce dose by 0-25%	Reduce dose by 0-25%	Use regular dose
Problems urinating	Tamsulosin on treatment day	Tamsulosin on treatment day	Tamsulosin on treatment day
Problems sleeping before session	Benzodiazepine/analogs, daridorexant, diphenhydramine, melatonin	Benzodiazepine/analogs, daridorexant, diphenhydramine, melatonin	Benzodiazepine/analogs, daridorexant, diphenhydramine, melatonin
Nausea, Vomiting	Domperidone (e.g., Motilium® 10mg max. 30mg / 24h), AVOID metoclopramide	Domperidone (Motilium ® 10mg max. 30mg / 24h), AVOID metoclopramide	Domperidone (Motilium ®10mg max. 30mg / 24h), AVOID metoclopramide
Migraine	1. Domperidone, Coffee, Paracetamol, NSAR 2. Triptan (if 1 is not working)	1. Domperidone, Coffee, Paracetamol, NSAR 2. Triptan (if 1 is not working)	1. Domperidone, Coffee, Paracetamol, NSAR 2. Triptan (if 1 is not working)
SSRIs, SNRIs	• reduced effect of MDMA but no adverse effects • pause for 4 elimination half-lives (5-7 days for most SSRIs, 2 weeks for fluoxetine) • consider switching SSRI, SNRI to bupropion	• maintain, optional on treatment days • consider LSD dose reduction 0-25 % with CYP2D6 inhibitors (paroxetine, fluoxetine or duloxetine) • regular LSD dose with escitalopram, sertraline or venlafaxine.	• maintain, optional on treatment days • Consider dose increase 0-25% with SSRI/SNRI.

Mirtazapine	• maintain or only skip last dose before MDMA • potentially decreased perceptual changes and emotional excitation but also fewer adverse effects • not studied	Pause 5-7 days before, not studied	Pause 5-7 days before, not studied
Trazodone	• maintain or only skip last dose before MDMA • potentially decreased perceptual changes and emotional excitation but also fewer adverse effects • not studied	Pause 1-2 days before, not studied	Pause 1-2 days before, not studied
Tricyclic Antidepressants (TCA;Trimipramine, Amitriptyline etc.)	• not studied, pause for 2 weeks if possible • consider switching TCA to Bupropion	not studied (reports of increased somatic and psychological response to LSD), pause for 1-2 weeks if possible	not studied, pause for 1-2 weeks if possible
Vortioxetine	• Potentially reduced effects, not studied • If possible, pause for 1-2 weeks	• Maintain, optional on treatment days • not studied	• Maintain, optional on treatment days • not studied
Bupropion	• maintain • normal or reduced MDMA dose • reduces cardiac stimulation and prolongs effect of MDMA (bupropion inhibits CYP2D6)	• maintain • consider dose reduction 0-25% (strong CYP2D6 inhibitor) • not studied	maintain, not studied
Agomelatin	Maintain, not studied	Maintain, not studied	Maintain, not studied
MAOI	• Stop 14 days before	• Stop 14 days before	• Stop 14 days before

	• Probably increased risk for serotonin toxicity • not studied	• not studied, reports of reduced subjective effects, but also potentially increased serotonin toxicity and greater cardiostimulation	• not studied, reports of reduced subjective effects, but also potentially increased serotonin toxicity and greater cardiostimulation
Lithium	• maintain or pause 3-7 days • potentially increased risk for serotonin toxicity • not studied	• maintain or better pause 3-7 days if possible, not studied • possibly increased response and risk of seizures	• maintain or better pause 3-7 days if possible, not studied • possibly increased risk of seizures
Antipsychotics	consider pause 2-5 days, particularly D2 antagonists (more negative mood/anxiety)	Pause at least 4-5 half-lives before (reduced overall effect but potentially more anxiety/bad drug effects with D2 antagonists)	Pause at least 4-5 half-lives before (reduced overall effect but potentially more anxiety/bad drug effects with D2 antagonists)
Pregabalin	maintain, not studied	Maintain, optional on treatment days (consider potential dose-dependent sedation), not studied	Maintain, optional on treatment days (consider potential dose-dependent sedation), not studied
Antiepileptics	• maintain, not studied • Topiramate: possibly reduces MDMA effects (anecdotal), omit at treatment day if possible, not studied	• maintain, not studied • CYP3A4 inhibitors (e.g., valproate) might increase LSD exposure or CYP3A4 inductors (e.g., carbamazepine, phenytoin) might decrease LSD exposure	Maintain, not studied
Opioids	• maintain, if possible, reduce or omit morning dose on treatment day • Consider potentially increased serotonin toxicity for some (i.e.,	• maintain, if possible reduce or omit morning dose on treatment day • Anecdotal reduced effect, not studied	• maintain, if possible reduce or omit morning dose on treatment day • not studied

	methadone, fentanyl, tramadol, tapentadol) • Not studied		
Benzodiazepines/Z-drugs	maintain, not studied	• maintain, not studied • If possible, reduce dose, omit on treatment day or give in the evening	• maintain, not studied • If possible, reduce dose, omit on treatment day or give in the evening
Disulfiram	Pause for 3 days, not studied	Pause for 3 days, not studied	Pause for 3 days, not studied
Naltrexone	Pause for 1-3 days, not studied	Pause for 1-3 days, not studied	Pause for 1-3 days, not studied
Methylphenidate	Pause on treatment day	Pause on treatment day, not studied	Pause on treatment day, not studied
(Lis)dexamphetamine	Pause on treatment day	Pause on treatment day, not studied	Pause on treatment day, not studied
Antihypertensives	Maintain, pause betablocker on session day	Maintain, not studied	Maintain, not studied

Treatment of adverse psychological reactions	• Talk down
	• Benzodiazepines
		• Talk down
		• 1. ketanserin if available (completely reverses LSD effect within 1-2 hours)
		• 2. Benzodiazepines (no reversal or shortening, but reduction of negative effects)
		• 3. neuroleptics (shortening but potentially more fear/paranoia/bad drug effects with D2 antagonists)
			• Talk down
			• Not tested
			  ○ 1. ketanserin if available
			  ○ 2. Benzodiazepines
			  ○ 3. neuroleptics (potentially more fear/paranoia/bad drug effects with D2 antagonists)

Abbreviations: CYP2D6: Cytochrom P450 2D6

Further interactions :

Cannabis: not known, possible no relevant interactions, not immediately before and during treatment. Pramipexole: no data, possibly no interactions, pause on treatment day. Amoxicilline/clavulanic acid: no data, possibly no problem. Pantoprazole/other proton pump inhibitors: no data, possibly no problem.

Metoclopromide: avoid with MDMA and psychedelics. Domperidone: can be used but possibly not very effective. Ondansetrone: no data, possibly no clinically relevant interaction. Antiepileptics: possibly a generally slightly increased risk of seizures with psychedelics and MDMA, possibly best to keep antiepileptics also on treatment day or give in the evening. Antitussives (Makatussin) containing sedating substances such as diphenhydramine/dihydrocodeine, not known, no relevant interaction expected. Dextromethorphan: avoid before/during sessions due to its serotonergic properties/2D6 inhibition.

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