

Appendix 1. ICD-9-CM and ICD-10-CM cannabis and psychodysleptics discharge codes with descriptions

ICD-9-CM Code	Description	Note
Cannabis dependence, 304.3		
304.30	Cannabis dependence – unspecified	
304.31	Cannabis dependence – continuous	
304.32	Cannabis dependence – episodic	
304.33	Cannabis dependence – in remission	
Cannabis abuse, 305.2		
305.20	Cannabis abuse – unspecified	
305.21	Cannabis abuse – continuous	
305.22	Cannabis abuse – episodic	
305.23	Cannabis abuse – in remission	
Poisoning – psychodysleptics [hallucinogens], 969.6		No sub-codes
Accidental poisoning by psychodysleptics [hallucinogens], E854.1		No sub-codes
Psychodysleptics [hallucinogens] causing adverse effects in therapeutic use, E939.6		No sub-codes
ICD-10-CM Code	Description	Note
Cannabis abuse, F12.1		
F12.10	Cannabis abuse, uncomplicated	
F12.11	Cannabis abuse, in remission	Added in FY 2018 (effective Oct 1, 2017)
F12.120	Cannabis abuse with intoxication, uncomplicated	
F12.121	Cannabis abuse with intoxication delirium	
F12.122	Cannabis abuse with intoxication with perceptual disturbance	
F12.129	Cannabis abuse with intoxication, unspecified	
F12.13	Cannabis abuse with withdrawal	Added in FY 2021 (effective Oct 1, 2020; not present in study data)
F12.150	Cannabis abuse with psychotic disorder with delusions	
F12.151	Cannabis abuse with psychotic disorder with hallucinations	
F12.159	Cannabis abuse with psychotic disorder, unspecified	
F12.180	Cannabis abuse with cannabis-induced anxiety disorder	
F12.188	Cannabis abuse with other cannabis-induced disorder	
F12.19	Cannabis abuse with unspecified cannabis-induced disorder	
Cannabis dependence, F12.2		
F12.20	Cannabis dependence, uncomplicated	
F12.21	Cannabis dependence, in remission	
F12.220	Cannabis dependence with intoxication, uncomplicated	
F12.221	Cannabis dependence with intoxication delirium	
F12.222	Cannabis dependence with intoxication with perceptual disturbance	
F12.229	Cannabis dependence with intoxication, unspecified	
F12.23	Cannabis dependence with withdrawal	Added in FY 2019 (effective Oct 1, 2018)
F12.250	Cannabis dependence with psychotic disorder with delusions	
F12.251	Cannabis dependence with psychotic disorder with hallucinations	
F12.259	Cannabis dependence with psychotic disorder, unspecified	
F12.280	Cannabis dependence with cannabis-induced anxiety disorder	
F12.288	Cannabis dependence with other cannabis-induced disorder	
F12.29	Cannabis dependence with unspecified cannabis-induced disorder	

ICD-10-CM Code	Description	Note
Cannabis use, F12.9		
F12.90	Cannabis use, unspecified, uncomplicated	
F12.920	Cannabis use, unspecified with intoxication, uncomplicated	
F12.921	Cannabis use, unspecified with intoxication delirium	
F12.922	Cannabis use, unspecified with intoxication with perceptual disturbance	
F12.929	Cannabis use, unspecified with intoxication, unspecified	
F12.93	Cannabis use, unspecified with withdrawal	Added in FY 2019 (effective Oct 1, 2018)
F12.950	Cannabis use, unspecified with psychotic disorder with delusions	
F12.951	Cannabis use, unspecified with psychotic disorder with hallucinations	
F12.959	Cannabis use, unspecified with psychotic disorder, unspecified	
F12.980	Cannabis use, unspecified with anxiety disorder	
F12.988	Cannabis use, unspecified with other cannabis-induced disorder	
F12.99	Cannabis use, unspecified with unspecified cannabis-induced disorder	
Poisoning by and adverse effects of cannabis (derivatives), T40.7		
T40.7X1A	Poisoning by cannabis (derivatives), accidental (unintentional) initial encounter	
T40.7X2A	Poisoning by cannabis (derivatives), intentional self-harm initial encounter	
T40.7X3A	Poisoning by cannabis (derivatives), assault initial encounter	
T40.7X4A	Poisoning by cannabis (derivatives), undetermined initial encounter	
T40.7X5A	Adverse effect of cannabis (derivatives), initial encounter	
Poisoning by and adverse effects of lysergide [LSD], T40.8		
T40.8X1A	Poisoning by lysergide [LSD] (accidental) initial encounter	
T40.8X2A	Poisoning by lysergide [LSD] (self-harm) initial encounter	
T40.8X3A	Poisoning by lysergide [LSD] (assault) initial encounter	
T40.8X4A	Poisoning by lysergide [LSD] (undetermined) initial encounter	
Poisoning by and adverse effects of unspecified psychodysleptics [hallucinogens], T40.90		
T40.901A	Poisoning by unspecified psychodysleptics [hallucinogens] (accidental) initial encounter	
T40.902A	Poisoning by unspecified psychodysleptics [hallucinogens] (self-harm) initial encounter	
T40.903A	Poisoning by unspecified psychodysleptics [hallucinogens] (assault) initial encounter	
T40.904A	Poisoning by unspecified psychodysleptics [hallucinogens] (undetermined) initial encounter	
T40.905A	Adverse effect of unspecified psychodysleptics [hallucinogens] initial encounter	
Poisoning by and adverse effects of other psychodysleptics [hallucinogens], T40.99		
T40.991A	Poisoning by other psychodysleptics [hallucinogens] (accidental) initial encounter	
T40.992A	Poisoning by other psychodysleptics [hallucinogens] (self harm) initial encounter	
T40.993A	Poisoning by other psychodysleptics [hallucinogens] (assault) initial encounter	
T40.994A	Poisoning by other psychodysleptics [hallucinogens] (undetermined) initial encounter	
T40.995A	Adverse effect of other psychodysleptics [hallucinogens] initial encounter	

Appendix 2. Annual counts of ED and hospital discharges with ICD-9-CM and ICD-10-CM codes for cannabis use disorders (Indicator 1) and poisoning/adverse effects of psychodysleptics (Indicator 2), 2011-2018

Coding Scheme	Year	ED Discharges					Inpatient Hospital Discharges				
		Indicator 1: Cannabis use disorders ^a		Indicator 2: Poisoning by and adverse effects of psychodysleptics ^b		Total	Indicator 1: Cannabis use disorders ^a		Indicator 2: Poisoning by and adverse effects of psychodysleptics ^b		Total
ICD-9-CM	2011	7,993	0.60%	265	0.02%	1,327,248	6,228	1.30%	124	0.03%	480,048
	2012	9,767	0.69%	274	0.02%	1,424,217	6,625	1.40%	143	0.03%	473,777
	2013	13,815	0.85%	474	0.03%	1,620,114	8,179	1.76%	161	0.03%	464,870
	2014	17,767	1.01%	748	0.04%	1,756,313	11,364	2.43%	168	0.04%	468,157
	Q1-Q3 2015	10,126	0.73%	468	0.03%	1,389,344	10,825	3.00%	163	0.05%	360,379
ICD-10-CM	Q4 2015	4,022	0.87%	196	0.04%	462,033	3,907	3.31%	68	0.06%	118,214
	2016	19,876	1.03%	803	0.04%	1,920,533	16,773	3.49%	260	0.05%	480,812
	2017	21,106	1.10%	943	0.05%	1,911,468	16,480	3.41%	278	0.06%	483,113
	2018	21,523	1.13%	1,237	0.06%	1,911,545	17,064	3.54%	295	0.06%	481,536
Total		125,995	0.92%	5,408	0.04%	13,722,815	97,445	2.56%	1,660	0.04%	3,810,906

^a Indicator 1: Cannabis use disorders included ICD-9-CM codes 304.3X and 305.2X and all ICD-10-CM F12 codes

^b Indicator 2: Poisoning and adverse effects of psychodysleptics included ICD-9-CM codes 969.6, E854.1, and E939.6, and ICD-10-CM codes T40.7X1A-T40.7X5A, T40.8X1A-T40.8X4A, T40.901A-T40.905A, T40.991A-T40.995A

Data source: Colorado Hospital Association, Jan 1, 2011-Dec 31, 2018

Appendix 3. Total number of cannabis ICD-10-CM codes in ED and hospital discharges from January 1, 2016 through December 31, 2018.

ICD-10-CM Code	Frequency (%)	
	ED Visits	Hospitalizations
F12.10: Cannabis abuse (uncomplicated)	17,764 (25.42)	15,153 (27.38)
F12.11: Cannabis abuse, in remission	38 (0.05)	174 (0.31)
F12.12, -0,-1,-2,-9: Cannabis abuse with intoxication (uncomplicated, with delirium, with perceptual disturbance, and unspecified)	1,141 (1.63)	184 (0.33)
F12.15, -0, -1, -9: Cannabis abuse with psychotic disorder (with delusions, with hallucinations, unspecified)	71 (0.1)	163 (0.29)
F12.18, -0, -8: Cannabis abuse with other cannabis-induced disorder (cannabis-induced anxiety disorder, cannabis-induced disorder)	823 (1.18)	324 (0.59)
F12.19: Cannabis abuse with unspecified cannabis-induced disorder	100 (0.14)	73 (0.13)
F12.20: Cannabis dependence uncomplicated	2,227 (3.19)	4,386 (7.92)
F12.21: Cannabis dependence in remission	134 (0.19)	226 (0.41)
F12.22, -0,-1,-2,-9: Cannabis dependence with intoxication (uncomplicated, with delirium, with perceptual disturbance, and unspecified)	85 (0.12)	43 (0.08)
F12.23: Cannabis dependence with withdrawal	<11	14 (0.03)
F12.25, -0, -1, -9: Cannabis dependence with psychotic disorder (with delusions, with hallucinations, unspecified)	25 (0.04)	126 (0.23)
F12.28, -0, -8: Cannabis dependence with other cannabis-induced disorder (cannabis-induced anxiety disorder, other cannabis-induced disorder)	116 (0.17)	173 (0.31)
F12.29: Cannabis dependence with unspecified cannabis-induced disorder	52 (0.07)	110 (0.2)
F12.90: Cannabis use, unspecified (uncomplicated)	39,986 (57.22)	31,230 (56.42)
F12.92, -0,-1,-2,-9: Cannabis use, unspecified with intoxication (uncomplicated, with delirium, with perceptual disturbance, and unspecified)	2,194 (3.14)	393 (0.71)
F12.95, -0, -1, -9: Cannabis use, unspecified with psychotic disorder (with delusions, with hallucinations, unspecified)	84 (0.12)	203 (0.37)
F12.98, -0, -8: Cannabis use, unspecified with other cannabis-induced disorder (with anxiety disorder, with cannabis-induced disorder)	839 (1.2)	306 (0.55)
F12.99: Cannabis use with unspecified cannabis-induced disorder	995 (1.42)	1,149 (2.08)
T40.7X1A: Poisoning by cannabis (accidental) initial encounter	1,551 (2.22)	461 (0.83)
T40.7X2A: Poisoning by cannabis (self-harm) initial encounter	52 (0.07)	91 (0.16)
T40.7X3A: Poisoning by cannabis (assault) initial encounter	<11	0 (0)
T40.7X4A: Poisoning by cannabis (undetermined) initial encounter	84 (0.12)	29 (0.05)
T40.7X5A: Poisoning by adverse effect of cannabis initial encounter	940 (1.35)	254 (0.46)
T40.8X1A: Poisoning by lysergide [LSD] (accidental) initial encounter	352 (0.5)	34 (0.06)
T40.8X2A: Poisoning by lysergide [LSD] (self-harm) initial encounter	25 (0.04)	9 (0.02)
T40.8X3A: Poisoning by lysergide [LSD] (assault) initial encounter	<11	<11
T40.8X4A: Poisoning by lysergide [LSD] (undetermined) initial encounter	115 (0.16)	<11
T40.901A: Poisoning by unspecified psychodysleptics [hallucinogens] (accidental) initial encounter	11 (0.02)	<11
T40.902A: Poisoning by unspecified psychodysleptics [hallucinogens] (self-harm) initial encounter	<11	<11
T40.903A: Poisoning by unspecified psychodysleptics [hallucinogens] (assault) initial encounter	0 (0.0)	0 (0.0)

ICD-10-CM Code	Frequency (%)	
	ED Visits	Hospitalizations
T40.904A: Poisoning by unspecified psychodysleptics [hallucinogens] (undetermined) initial encounter	<11	0 (0.0)
T40.905A: Adverse effect of unspecified psychodysleptics [hallucinogens] initial encounter	<11	0 (0.0)
T40.991A: Poisoning by other psychodysleptics [hallucinogens] (accidental) initial encounter	37 (0.05)	18 (0.03)
T40.992A: Poisoning by other psychodysleptics [hallucinogens] (self harm) initial encounter	<11	<11
T40.993A: Poisoning by other psychodysleptics [hallucinogens] (assault) initial encounter	<11	0 (0.0)
T40.994A: Poisoning by other psychodysleptics [hallucinogens] (undetermined) initial encounter	<11	<11
T40.995A: Adverse effect of other psychodysleptics [hallucinogens] initial encounter	18 (0.03)	<11