

Disclaimer

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Data obtained through Sentinel are intended to complement other types of evidence such as preclinical studies, clinical trials, postmarket studies, and adverse event reports, all of which are used by FDA to inform regulatory decisions regarding medical product safety. The information contained in this report is provided as part of FDA's commitment to place knowledge acquired from Sentinel in the public domain as soon as possible. Any public health actions taken by FDA regarding products involved in Sentinel queries will continue to be communicated through existing channels.

FDA wants to emphasize that the fact that FDA has initiated a query involving a medical product and is reporting findings related to that query does not mean that FDA is suggesting health care practitioners should change their prescribing practices for the medical product or that patients taking the medical product should stop using it. Patients who have questions about the use of an identified medical product should contact their health care practitioners.

The following report contains a description of the request, request specifications, and results from the modular program run(s).

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Appendix B. List of Generic and Brand Drug Names Used to Define the Exposure in this Request

Generic Name	Brand Name	Strength	Unit
oxycodone HCl	RoxyBond	15	mg
oxycodone HCl	RoxyBond	30	mg
oxycodone HCl	oxycodone	10	mg/0.5 mL
morphine sulfate	Arymo ER	60	mg
hydrocodone bitartrate/acetaminophen	Norco	5-325	mg
morphine sulfate	Kadian	50	mg
hydrocodone bitartrate/acetaminophen	Norco	7.5-325	mg
hydrocodone bitartrate/acetaminophen	Norco	10-325	mg
meperidine HCl	Demerol	50	mg
meperidine HCl	Demerol	100	mg
acetaminophen with codeine phosphate	Tylenol-Codeine #4	300-60	mg
morphine sulfate	morphine	10	mg/5 mL
codeine sulfate	codeine sulfate	15	mg
codeine sulfate	codeine sulfate	30	mg
codeine sulfate	codeine sulfate	60	mg
hydromorphone HCl	hydromorphone	4	mg
oxymorphone HCl	oxymorphone	5	mg
hydromorphone HCl	hydromorphone	1	mg/mL
oxycodone HCl	oxycodone	5	mg/5 mL
levorphanol tartrate	levorphanol tartrate	2	mg
oxycodone HCl/acetaminophen	oxycodone-acetaminophen	5-325	mg
oxycodone HCl/acetaminophen	oxycodone-acetaminophen	5-500	mg
butorphanol tartrate	butorphanol tartrate	10	mg/mL
meperidine HCl	meperidine	50	mg/5 mL
oxycodone HCl/acetaminophen	Roxicet	5-325	mg/5 mL
methadone HCl	Dolophine	5	mg
methadone HCl	Dolophine	10	mg
methadone HCl	methadone	5	mg
methadone HCl	methadone	10	mg
meperidine HCl	meperidine	50	mg
meperidine HCl	meperidine	100	mg
oxycodone HCl/acetaminophen	Roxicet	5-325	mg
oxycodone HCl/acetaminophen	Roxicet	5-500	mg
hydrocodone bitartrate/acetaminophen	Vicodin	5-500	mg
hydrocodone bitartrate/acetaminophen	Vicodin ES	7.5-750	mg
hydrocodone bitartrate/acetaminophen	Vicodin HP	10-660	mg
hydrocodone/ibuprofen	Vicoprofen	7.5-200	mg
hydrocodone bitartrate/acetaminophen	Vicodin	5-300	mg
hydrocodone bitartrate/acetaminophen	Vicodin ES	7.5-300	mg
hydrocodone bitartrate/acetaminophen	Vicodin HP	10-300	mg
acetaminophen with codeine phosphate	acetaminophen-codeine	300-15	mg
tramadol HCl	tramadol	50	mg
acetaminophen with codeine phosphate	acetaminophen-codeine	300-30	mg
acetaminophen with codeine phosphate	acetaminophen-codeine	300-60	mg

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Generic Name	Brand Name	Strength	Unit
hydrocodone/ibuprofen	hydrocodone-ibuprofen	7.5-200	mg
oxycodone HCl	oxycodone	10	mg
hydrocodone bitartrate/acetaminophen	Zolvit	10-300	mg/15 mL
hydrocodone bitartrate/acetaminophen	Lortab Elixir	10-300	mg/15 mL
morphine sulfate	morphine	20	mg
morphine sulfate	morphine	50	mg
morphine sulfate	morphine	80	mg
oxymorphone HCl	oxymorphone	7.5	mg
acetaminophen with codeine phosphate	acetaminophen-codeine	120 mg-12 mg	/5 mL (5 mL)
acetaminophen with codeine phosphate	acetaminophen-codeine	120-12	mg/5 mL
acetaminophen with codeine phosphate	acetaminophen-codeine	240 mg-24 mg	/10 mL (10 mL)
acetaminophen with codeine phosphate	acetaminophen-codeine	300 mg-30 mg	/12.5 mL
acetaminophen with codeine phosphate	acetaminophen-codeine	360 mg-36 mg	/15 mL (15 mL)
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	7.5-500	mg/15 mL
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	7.5-325	mg/15 mL
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	2.5-167	mg/5 mL
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	5-334	mg/10 mL
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	7.5-500	mg/15 mL(15 mL)
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	5-163	mg/7.5mL(7.5mL)
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	10-325	mg/15 mL(15 mL)
hydrocodone bitartrate/acetaminophen	Co-Gesic	5-500	mg
butalbital/acetaminophen/caffeine/codeine phosphate	butalbital-acetaminop-caf-cod	50-325-40-30	mg
tramadol HCl/acetaminophen	tramadol-acetaminophen	37.5-325	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	5-325	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	10-325	mg
carisoprodol/aspirin/codeine phosphate	carisoprodol-ASA-codeine	200-325-16	mg
acetaminophen with codeine phosphate	Capital with Codeine	120-12	mg/5 mL
oxycodone HCl	oxycodone	5	mg
oxycodone HCl/acetaminophen	oxycodone-acetaminophen	7.5-325	mg
oxycodone HCl/acetaminophen	oxycodone-acetaminophen	10-325	mg
morphine sulfate	morphine	45	mg
morphine sulfate	morphine	75	mg
morphine sulfate	morphine	10	mg
ibuprofen/oxycodone HCl	ibuprofen-oxycodone	400-5	mg
tramadol HCl	tramadol	100	mg
tramadol HCl	tramadol	200	mg
tramadol HCl	tramadol	300	mg
oxycodone HCl/aspirin	oxycodone-aspirin	4.8355-325	mg
oxycodone HCl/acetaminophen	oxycodone-acetaminophen	2.5-325	mg
oxycodone HCl/acetaminophen	oxycodone-acetaminophen	7.5-500	mg
oxycodone HCl/acetaminophen	oxycodone-acetaminophen	10-650	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	7.5-325	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	5-500	mg

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Generic Name	Brand Name	Strength	Unit
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	7.5-500	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	7.5-650	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	7.5-750	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	10-650	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	10-660	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	10-500	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	10-750	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	5-300	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	7.5-300	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	10-300	mg
hydromorphone HCl	hydromorphone	2	mg
hydromorphone HCl	hydromorphone	12	mg
hydromorphone HCl	hydromorphone	16	mg
methadone HCl	Methadose	10	mg
oxycodone HCl/acetaminophen	oxycodone-acetaminophen	5-325	mg/5 mL
hydrocodone bitartrate/acetaminophen	Hydrogesic	5-500	mg
hydrocodone bitartrate/acetaminophen	Zamiset	10-325	mg/15 mL
acetaminophen/caffeine/dihydrocodeine bitartrate	Panlor SS	712.8-60-32	mg
codeine phosphate/butalbital/aspirin/caffeine	Butalbital Compound W/Codeine	30-50-325-40	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	2.5-500	mg
oxycodone HCl/oxycodone terephthalate/aspirin	oxycodone HCl-oxycodone-ASA	4.5-0.38-325	mg
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen	2.5-325	mg
butalbital/acetaminophen/caffeine/codeine phosphate	butalbital-acetaminop-caf-cod	50-300-40-30	mg
hydrocodone/ibuprofen	hydrocodone-ibuprofen	5-200	mg
hydrocodone/ibuprofen	hydrocodone-ibuprofen	10-200	mg
hydrocodone bitartrate/acetaminophen	Hycet	7.5-325	mg/15 mL
hydrocodone bitartrate/acetaminophen	Lorcet Plus	7.5-650	mg
hydrocodone bitartrate/acetaminophen	Lorcet 10/650	10-650	mg
fentanyl citrate	Lazanda	100	mcg/spray
tramadol HCl	Ryzolt	100	mg
tramadol HCl	Ryzolt	300	mg
acetaminophen/caffeine/dihydrocodeine bitartrate	acetaminophen-caff-dihydrocod	712.8-60-32	mg
morphine sulfate	Avinza	60	mg
morphine sulfate	Avinza	30	mg
morphine sulfate	Kadian	60	mg
oxycodone HCl/acetaminophen	Percocet	10-325	mg
oxycodone HCl/acetaminophen	Percocet	5-325	mg
oxycodone HCl/acetaminophen	Percocet	10-650	mg
hydrocodone bitartrate/acetaminophen	Lortab	10-500	mg

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Generic Name	Brand Name	Strength	Unit
hydrocodone bitartrate/acetaminophen	Lortab	7.5-500	mg
meperidine HCl	Meperitab	50	mg
oxycodone HCl	OxyContin	10	mg
morphine sulfate	Kadian	20	mg
oxymorphone HCl	Opana ER	10	mg
oxycodone HCl/acetaminophen	Percocet	7.5-325	mg
oxymorphone HCl	Opana ER	5	mg
hydromorphone HCl	Dilaudid	2	mg
morphine sulfate	Kadian	80	mg
hydrocodone bitartrate/acetaminophen	Xodol 10/300	10-300	mg
oxycodone HCl/acetaminophen	Magnacet	10-400	mg
oxymorphone HCl	Opana	5	mg
morphine sulfate	Avinza	75	mg
tapentadol HCl	Nucynta	50	mg
morphine sulfate	Avinza	45	mg
oxycodone HCl/acetaminophen	Endocet	10-325	mg
hydromorphone HCl	Exalgo ER	8	mg
oxycodone HCl/aspirin	Endodan	4.8355-325	mg
acetaminophen/caffeine/dihydrocodeine bitartrate	Zerlor	712.8-60-32	mg
fentanyl	Subsys	100	mcg/spray
fentanyl	Subsys	200	mcg/spray
tramadol HCl/acetaminophen	Ultracet	37.5-325	mg
tramadol HCl	Ultram ER	100	mg
tramadol HCl	Ultram ER	200	mg
hydrocodone bitartrate/acetaminophen	Xodol 5/300	5-300	mg
hydrocodone bitartrate/acetaminophen	Xodol 7.5/300	7.5-300	mg
acetaminophen/caffeine/dihydrocodeine bitartrate	Trezix	356.4-30-16	mg
tramadol HCl	tramadol	150	mg
tramadol HCl	Ultram ER	300	mg
oxycodone HCl/acetaminophen	Xolox	10-500	mg
codeine phosphate/butalbital/aspirin/caffeine	Butalbital Compound-Codeine	30-50-325-40	mg
oxycodone HCl/acetaminophen	Endocet	10-650	mg
oxycodone HCl/acetaminophen	Endocet	7.5-325	mg
oxycodone HCl/acetaminophen	Endocet	7.5-500	mg
oxycodone HCl/acetaminophen	Xartemis XR	7.5-325	mg
hydromorphone HCl	Exalgo ER	12	mg
hydromorphone HCl	Exalgo ER	16	mg
oxycodone HCl	Roxicodone	5	mg
hydrocodone/ibuprofen	Reprexain	2.5-200	mg
hydrocodone/ibuprofen	Reprexain	5-200	mg
hydrocodone/ibuprofen	Reprexain	10-200	mg

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Generic Name	Brand Name	Strength	Unit
oxycodone HCl/acetaminophen	Primlev	5-300	mg
oxycodone HCl/acetaminophen	Primlev	7.5-300	mg
oxycodone HCl/acetaminophen	Primlev	10-300	mg
oxycodone myristate	Xtampza ER	9	mg
oxycodone myristate	Xtampza ER	13.5	mg
oxycodone myristate	Xtampza ER	18	mg
hydromorphone HCl	Dilaudid	4	mg
morphine sulfate	Kadian	10	mg
morphine sulfate	Kadian	30	mg
oxycodone HCl	OxyContin	20	mg
morphine sulfate	MS Contin	15	mg
morphine sulfate	MS Contin	30	mg
morphine sulfate	Oramorph SR	15	mg
morphine sulfate	Oramorph SR	30	mg
tramadol HCl	Ryzolt	200	mg
morphine sulfate/naltrexone HCl	Embeda	60-2.4	mg
morphine sulfate/naltrexone HCl	Embeda	20-0.8	mg
morphine sulfate/naltrexone HCl	Embeda	30-1.2	mg
oxycodone HCl/acetaminophen	Endocet	5-325	mg
tapentadol HCl	Nucynta ER	100	mg
tapentadol HCl	Nucynta ER	50	mg
acetaminophen/caffeine/dihydrocodeine bitartrate	acetaminophen-caff-dihydrocod	320.5-30-16	mg
fentanyl citrate	Abstral	100	mcg
hydromorphone HCl	Dilaudid	1	mg/mL
TRAMADOL HCL/GLUCOSAMINE SULFATE	Synapryn	10-5	mg/mL
hydrocodone bitartrate	Zohydro ER	10	mg
hydrocodone bitartrate	Zohydro ER	15	mg
hydrocodone bitartrate	Zohydro ER	20	mg
hydrocodone bitartrate	Zohydro ER	30	mg
hydrocodone bitartrate	Zohydro ER	40	mg
oxycodone HCl/acetaminophen	oxycodone-acetaminophen	5-300	mg
oxycodone HCl/acetaminophen	oxycodone-acetaminophen	7.5-300	mg
oxycodone HCl/acetaminophen	oxycodone-acetaminophen	10-300	mg
morphine sulfate	Kadian	40	mg
morphine sulfate	Kadian	70	mg
aspirin/caffeine/dihydrocodeine bitartrate	Synalgos-DC	356.4-30-16	mg
tramadol HCl	Ultram	50	mg
acetaminophen with codeine phosphate	Tylenol-Codeine #3	300-30	mg
oxycodone HCl/acetaminophen	Tylox	5-500	mg
hydrocodone bitartrate/acetaminophen	Lortab	5-500	mg
hydrocodone bitartrate/acetaminophen	Lortab Elixir	7.5-500	mg/15 mL
hydrocodone bitartrate/acetaminophen	Lortab 5-325	5-325	mg
hydrocodone bitartrate/acetaminophen	Lortab 7.5-325	7.5-325	mg

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Generic Name	Brand Name	Strength	Unit
hydrocodone bitartrate/acetaminophen	Lortab 10-325	10-325	mg
acetaminophen with codeine phosphate	Cocet Plus	650-60	mg
acetaminophen with codeine phosphate	Cocet	650-30	mg
hydrocodone/ibuprofen	Ibudone	5-200	mg
hydrocodone/ibuprofen	Ibudone	10-200	mg
hydrocodone/ibuprofen	Xylon 10	10-200	mg
codeine sulfate	codeine sulfate	30	mg/5 mL
hydrocodone bitartrate/acetaminophen	Lorcet (hydrocodone)	5-325	mg
hydrocodone bitartrate/acetaminophen	Lorcet Plus	7.5-325	mg
hydrocodone bitartrate/acetaminophen	Lorcet HD	10-325	mg
codeine phosphate/butalbital/aspirin/caffeine	Ascomp with Codeine	30-50-325-40	mg
butalbital/acetaminophen/caffeine/codeine phosphate	Fioricet with Codeine	50-300-40-30	mg
hydrocodone bitartrate/acetaminophen	Maxidone	10-750	mg
codeine phosphate/butalbital/aspirin/caffeine	Fiorinal-Codeine #3	30-50-325-40	mg
butalbital/acetaminophen/caffeine/codeine phosphate	Fioricet with Codeine	50-325-40-30	mg
hydrocodone bitartrate/acetaminophen	Zydone	7.5-400	mg
carisoprodol/aspirin/codeine phosphate	Carisoprodol Compound-Codeine	200-325-16	mg
hydrocodone/ibuprofen	hydrocodone-ibuprofen	2.5-200	mg
tramadol HCl	ConZip	200	mg
hydrocodone bitartrate/acetaminophen	Zydone	10-400	mg
hydrocodone bitartrate/acetaminophen	Zydone	5-400	mg
oxycodone HCl/acetaminophen	Percocet	7.5-500	mg
oxycodone HCl	Oxaydo	5	mg
oxycodone HCl	Oxaydo	7.5	mg
aspirin/caffeine/dihydrocodeine bitartrate	aspirin-caffeine-dihydrocodein	356.4-30-16	mg
hydrocodone bitartrate/acetaminophen	Stagesic	5-500	mg
hydrocodone bitartrate	Hysingla ER	20	mg
hydrocodone bitartrate	Hysingla ER	30	mg
hydrocodone bitartrate	Hysingla ER	40	mg
hydrocodone bitartrate	Hysingla ER	60	mg
hydrocodone bitartrate	Hysingla ER	80	mg
oxycodone HCl	OxyContin	15	mg
buprenorphine HCl	Belbuca	75	mcg
buprenorphine HCl	Belbuca	150	mcg
tramadol HCl	Rybix ODT	50	mg
oxycodone HCl/acetaminophen	Magnacet	5-400	mg
oxycodone HCl/acetaminophen	Magnacet	7.5-400	mg
morphine sulfate/naltrexone HCl	Embeda	50-2	mg
morphine sulfate/naltrexone HCl	Embeda	80-3.2	mg
oxycodone HCl	Oxecta	5	mg

Appendix B. List of Generic and Brand Drug Names Used to Define the Exposure in this Request

Generic Name	Brand Name	Strength	Unit
oxycodone HCl	Oxecta	7.5	mg
oxycodone HCl/acetaminophen	Endocet	2.5-325	mg
acetaminophen/caffeine/dihydrocodeine bitartrate	Trezix	320.5-30-16	mg
fentanyl citrate	Fentora	100	mcg
oxycodone HCl/aspirin	Percodan	4.8355-325	mg
oxymorphone HCl	Opana ER	7.5	mg
oxycodone HCl/acetaminophen	Percocet	2.5-325	mg
codeine phosphate/butalbital/aspirin/caffeine	codeine-butalbital-ASA-caff	30-50-325-40	mg
morphine sulfate	MorphaBond ER	15	mg
morphine sulfate	MorphaBond ER	30	mg
oxycodone HCl	RoxyBond	5	mg
tramadol HCl	ConZip	100	mg
tramadol HCl	ConZip	300	mg
hydrocodone bitartrate/acetaminophen	Verdrocet	2.5-325	mg
acetaminophen/caffeine/dihydrocodeine bitartrate	acetaminophen-caff-dihydrocod	325-30-16	mg
codeine sulfate	codeine sulfate	15 mg/2.5 mL	(2.5 mL)
codeine sulfate	codeine sulfate	30 mg/5 mL	(5 mL)
tramadol HCl/dietary supplement,misc. cb.11	Thertramadol-60	50	mg
tramadol HCl/dietary supplement,misc. cb.11	Thertramadol-90	50	mg
hydrocodone bitartrate/acetaminophen/dietary supplement #11	Theracodophen-325	10-325	mg
hydrocodone bitartrate/acetaminophen/dietary supplement #11	Theracodophen-650	10-650	mg
hydrocodone bitartrate/acetaminophen/dietary supplement #11	Theracodophen-Low-90	5-500	mg
morphine sulfate	Arymo ER	15	mg
morphine sulfate	Arymo ER	30	mg
acetaminophen/caffeine/dihydrocodeine bitartrate	Panlor(acetam-caff-dihydrocod)	325-30-16	mg
oxycodone HCl/acetaminophen	Nalocet	2.5-300	mg
Transdermal Opioid Analgesics (Fentanyl & Buprenorphine)			
buprenorphine	buprenorphine	5	mcg/hour
buprenorphine	Butrans	5	mcg/hour
buprenorphine	buprenorphine	7.5	mcg/hour
buprenorphine	Butrans	7.5	mcg/hour
buprenorphine	buprenorphine	10	mcg/hour

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Generic Name	Brand Name	Strength	Unit
buprenorphine	Butrans	10	mcg/hour
buprenorphine	buprenorphine	15	mcg/hour
buprenorphine	Butrans	15	mcg/hour
buprenorphine	buprenorphine	20	mcg/hour
buprenorphine	Butrans	20	mcg/hour
fentanyl	fentanyl	12	mcg/hr
fentanyl	Duragesic	12	mcg/hr
fentanyl	fentanyl	25	mcg/hr
fentanyl	Duragesic	25	mcg/hr
fentanyl	fentanyl	37.5	mcg/hour
fentanyl	fentanyl	50	mcg/hr
fentanyl	Duragesic	50	mcg/hr
fentanyl	fentanyl	62.5	mcg/hour
fentanyl	fentanyl	75	mcg/hr
fentanyl	Duragesic	75	mcg/hr
fentanyl	fentanyl	87.5	mcg/hour
fentanyl	fentanyl	100	mcg/hr
fentanyl	Duragesic	100	mcg/hr

Appendix C. List of Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define the Exposure in this Request

Code	Code Category	Code Type	Description
Lower Dosage Strength and All Oral and Transmucosal Opioid Analgesics			
S0012	Procedure	HCPCS	Butorphanol tartrate, nasal spray, 25 mg

Appendix D. List of Generic and Brand Drug Names Used to Define the Concurrent Therapies in this Request

Generic Name	Brand Name
Benzodiazepines	
CHLORDIAZEPOXIDE HCL	chlordiazepoxide HCl
CHLORDIAZEPOXIDE/CLIDINIUM BROMIDE	Librax (with clidinium)
CHLORDIAZEPOXIDE/CLIDINIUM BROMIDE	chlordiazepoxide-clidinium
FLURAZEPAM HCL	flurazepam
OXAZEPAM	oxazepam
TEMAZEPAM	temazepam
TEMAZEPAM	Restoril
TEMAZEPAM/DIETARY SUPPLEMENT NO.8	Strazepam
ALPRAZOLAM/DIETARY SUPPLEMENT, MISC COMBO NO.17	Gabazolamine
ALPRAZOLAM	Alprazolam Intensol
DIAZEPAM	Diazepam Intensol
DIAZEPAM	diazepam
LORAZEPAM	Lorazepam Intensol
LORAZEPAM	lorazepam
CLOBAZAM	Onfi
MIDAZOLAM HCL	midazolam
ALPRAZOLAM	Xanax
ALPRAZOLAM	alprazolam
AMITRIPTYLINE HCL/CHLORDIAZEPOXIDE	amitriptyline-chlordiazepoxide
CLONAZEPAM	Klonopin
CLONAZEPAM	clonazepam
CLORAZEPATE DIPOTASSIUM	clorazepate dipotassium
CLORAZEPATE DIPOTASSIUM	Tranxene T-Tab
DIAZEPAM	Valium
ESTAZOLAM	estazolam
LORAZEPAM	Ativan
QUAZEPAM	Doral
QUAZEPAM	quazepam
TRIAZOLAM	Halcion
TRIAZOLAM	triazolam
ALPRAZOLAM	Xanax XR
ALPRAZOLAM	Niravam
Gabapentinoids	
GABAPENTIN	Fanatrex
GABAPENTIN	gabapentin
GABAPENTIN	Gralise
GABAPENTIN	Gralise 30-Day Starter Pack
GABAPENTIN	Neurontin
GABAPENTIN ENACARBIL	Horizant
GABAPENTIN/DIETARY SUPPLEMENT, MISC COMBO NO.11	Therapentin-60
GABAPENTIN/DIETARY SUPPLEMENT, MISC COMBO NO.11	Therapentin-90
PREGABALIN	Lyrica

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Generic Name	Brand Name
Z-Drugs	
eszopiclone	Lunesta
eszopiclone	eszopiclone
zaleplon	zaleplon
zaleplon	Sonata
zolpidem tartrate	zolpidem
zolpidem tartrate	Ambien
zolpidem tartrate	Ambien CR
zolpidem tartrate	Zolpimist
zolpidem tartrate	Edluar
zolpidem tartrate	Intermezzo

Appendix E. List of Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Concurrent Therapies in this Request

Code	Code Category	Code Type	Description
Benzodiazepines			
J3360	Procedure	HCPCS	Injection, diazepam, up to 5 mg
J2060	Procedure	HCPCS	Injection, lorazepam, 2 mg
J1990	Procedure	HCPCS	Injection, chlordiazepoxide HCl, up to 100 mg
J2250	Procedure	HCPCS	Injection, midazolam HCl, per 1 mg

Appendix F. Specifications of Parameters for this Request

This request used the Cohort Identification and Descriptive Analysis (CIDA) tool, version 6.0.0, to characterize user demographics and treatment duration of higher dosage strength opioid analgesics in the Sentinel Distributed Database (SDD).

Query Period: January 1, 2012- June 30, 2018
Coverage requirement: Medical & Drug Coverage
Pre-index enrollment requirement: 7 days
Post-index enrollment requirement: 7 days
Enrollment gap: 45 days
Age Groups (Years): 0-17, 18-29, 30-49, 50-64, 65+ years
Stratifications, Type 1 Output: Year, Year by Age, Year by Sex
Stratifications, Baseline: None
Envelope macro: Reclassify encounters during inpatient stay as inpatient
Freeze data: No
Baseline table: Yes

Exposure

Scenario	Index Exposure/ Event	Care setting	Cohort Definition	Incident with respect to:	Washout period	Censor enrollment at evidence of
1	Higher dosage strength oral and transmucosal opioid analgesics	Any care setting	All valid index dates during query period	None	0	Death, DP end date, Query end date
2	Lower dosage strength oral and transmucosal opioid analgesics	Any care setting	All valid index dates during query period	None	0	Death, DP end date, Query end date
3	All oral and transmucosal opioid analgesics	Any care setting	All valid index dates during query period	None	0	Death, DP end date, Query end date
4	Transdermal opioid analgesics (fentanyl and buprenorphine)	Any care setting	All valid index dates during query period	None	0	Death, DP end date, Query end date

Healthcare Common Procedure Coding System (HCPCS) codes are provided by Optum360.

National Drug Codes (NCDs) are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."