Transdermal fentanyl: Pharmacology and toxicology

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Citation Report

#	Article	IF	CITATIONS
1	Complications of Oral Exposure to Fentanyl Transdermal Delivery System Patches. Journal of Medical Toxicology, 2010, 6, 443-447.	0.8	32
2	Fentanyl in postmortem forensic toxicology. Clinical Toxicology, 2010, 48, 771-784.	0.8	37
3	Opioids in Preclinical and Clinical Trials. Topics in Current Chemistry, 2010, 299, 29-62.	4.0	57
4	Disaster after the plaster. Fentanyl withdrawal symptoms in a curable hospice patient. European Journal of General Practice, 2011, 17, 229-232.	0.9	5
5	A new automated urine fentanyl immunoassay: Technical performance and clinical utility for monitoring fentanyl compliance. Clinica Chimica Acta, 2011, 412, 946-951.	0.5	21
6	Pharmacokinetic/Pharmacodynamic Relationships of Transdermal Buprenorphine and Fentanyl in Experimental Human Pain Models. Basic and Clinical Pharmacology and Toxicology, 2011, 108, 274-284.	1.2	36
8	Development of a homogeneous immunoassay for the detection of fentanyl in urine. Forensic Science International, 2011, 206, 127-131.	1.3	44
9	Recent Advances in the Development of 14-Alkoxy Substituted Morphinans as Potent and Safer Opioid Analgesics. Current Medicinal Chemistry, 2012, 19, 2442-2457.	1.2	23
10	Pulmonary Alveolar Proteinosis as a Reaction to Fentanyl Patch Smoke. Chest, 2012, 141, 1321-1323.	0.4	15
11	Whole Fentanyl Patch Ingestion: A Multi-center Case Series. Journal of Emergency Medicine, 2012, 42, 549-552.	0.3	34
13	Life-threatening coma and full-thickness sunburn in a patient treated with transdermal fentanyl patches: a case report. Journal of Medical Case Reports, 2012, 6, 220.	0.4	25
14	Management of Opioid Analgesic Overdose. New England Journal of Medicine, 2012, 367, 146-155.	13.9	433
15	Writing an Effective Review Article. Journal of Medical Toxicology, 2012, 8, 89-90.	0.8	42
16	Fatal overdose after ingestion of a transdermal fentanyl patch in two non-human primates. Veterinary Anaesthesia and Analgesia, 2012, 39, 653-656.	0.3	16
17	Reliability of Postmortem Fentanyl Concentrations in Determining the Cause of Death. Journal of Medical Toxicology, 2013, 9, 34-41.	0.8	45
18	Opioid Overdose Mortality in Kansas, 2001-2011: Toxicologic Evaluation of Intent. Journal of Analytical Toxicology, 2013, 37, 629-635.	1.7	11
19	Pharmacokinetics and Dose Proportionality of Fentanyl Sublingual Spray: a Single-Dose 5-Way Crossover Study. Clinical Drug Investigation, 2013, 33, 391-400.	1.1	13
20	Assessment of Extended-Release Opioid Analgesics for the Treatment of Chronic Pain. Journal of Pain and Palliative Care Pharmacotherapy, 2013, 27, 49-61.	0.5	22

#	Article	IF	CITATIONS
21	Primary Care Considerations of the Pharmacokinetics and Clinical Use of Extended-Release Opioids in Treating Patients with Chronic Noncancer Pain. Postgraduate Medicine, 2013, 125, 115-127.	0.9	106
22	Update on prescription extended-release opioids and appropriate patient selection. Journal of Multidisciplinary Healthcare, 2013, 6, 265.	1.1	17
24	Efficacy and Safety of Transdermal Fentanyl in the Control of Postoperative Pain After Photorefractive Keratectomy. Journal of Ocular Pharmacology and Therapeutics, 2014, 30, 783-789.	0.6	7
25	Transdermal fentanyl patch for postoperative analgesia in total knee arthroplasty: a randomized double-blind controlled trial. Journal of Pain Research, 2014, 7, 449.	0.8	15
26	Cross-Reactivity of Acetylfentanyl and Risperidone With a Fentanyl Immunoassay. Journal of Analytical Toxicology, 2014, 38, 672-675.	1.7	44
27	Role of central and peripheral opiate receptors in the effects of fentanyl on analgesia, ventilation and arterial blood-gas chemistry in conscious rats. Respiratory Physiology and Neurobiology, 2014, 191, 95-105.	0.7	33
28	Reduced morphine consumption and pain severity with transdermal fentanyl patches following total knee arthroplasty. Knee Surgery, Sports Traumatology, Arthroscopy, 2014, 22, 1580-1584.	2.3	14
29	Fentanyl-related compounds and derivatives: current status and future prospects for pharmaceutical applications. Future Medicinal Chemistry, 2014, 6, 385-412.	1.1	191
30	Fentanyl: cause of death or incidental finding? Postmortem peripheral blood concentrations with and without documented transdermal patch use. Forensic Toxicology, 2014, 32, 118-125.	1.4	14
31	A systematic review of medication administration errors with transdermal patches. Expert Opinion on Drug Safety, 2014, 13, 1101-1114.	1.0	17
32	Prescription opioids, abuse and public health in Canada: is fentanyl the new centre of the opioid crisis?. Pharmacoepidemiology and Drug Safety, 2015, 24, 1334-1336.	0.9	21
33	Transdermal Fentanyl Poisoning the Traps!. Journal of Medical Toxicology and Clinical Forensic Medicine, 2015, , .	0.2	0
34	Noninterventional Study of Transdermal Fentanyl (Fentavera) Matrix Patches in Chronic Pain Patients: Analgesic and Quality of Life Effects. Pain Research and Treatment, 2015, 2015, 1-9.	1.7	2
35	A case of overdose via tattoo. Journal of the Intensive Care Society, 2015, 16, 253-256.	1.1	5
36	Transdermal patches: history, development and pharmacology. British Journal of Pharmacology, 2015, 172, 2179-2209.	2.7	357
37	Fatal Fentanyl Patch Misuse in a Hospitalized Patient with a Postmortem Increase in Fentanyl Blood Concentration. Journal of Forensic Sciences, 2015, 60, 243-246.	0.9	17
38	On the characterization of medicated plasters containing NSAIDs according to novel indications of USP and EMA: adhesive property and <i>in vitro</i> skin permeation studies. Drug Development and Industrial Pharmacy, 2015, 41, 183-189.	0.9	16
39	The Fentanyl Patch Boil-Up - A Novel Method of Opioid Abuse. Basic and Clinical Pharmacology and Toxicology, 2015, 117, 358-359.	1.2	23

#	Article	IF	CITATIONS
41	Décès et dispositifs transdermiques au fentanylÂ: 9Âcas et revue de la littérature. Revue De Medecine Legale, 2015, 6, 60-69.	0.1	2
42	Extensive subcutaneous haematoma associated with transdermal analgesic patch in a haemophilia A patient with inhibitor. Haemophilia, 2016, 22, e333-5.	1.0	1
43	Are transdermal opioids contraindicated in patients at risk of suicide?. European Journal of Anaesthesiology, 2016, 33, 604-605.	0.7	4
44	Colonoscopy Enables the Diagnosis of Opiate Abuse. Clinical Gastroenterology and Hepatology, 2016, 14, A23.	2.4	0
45	Consequences of unsafe prescribing of transdermal fentanyl. Cmaj, 2016, 188, 638-639.	0.9	5
46	Missed opportunities?: an evaluation of potentially preventable poisoning deaths*. Clinical Toxicology, 2016, 54, 441-446.	0.8	3
47	Fentanyl for neuropathic pain in adults. The Cochrane Library, 2019, 2019, CD011605.	1.5	28
48	Studies on Control of Erratic Release of Ketoprofen from Commercial Patches for Sustained Pain-Relief Using Silica Microparticles. Nano Hybrids and Composites, 2016, 12, 88-97.	0.8	2
49	ACMT Position Statement: Safety Issues Regarding Prescription Fentanyl Products. Journal of Medical Toxicology, 2016, 12, 211-212.	0.8	2
50	A Cluster of Fentanyl-Laced Heroin Deaths in 2015 in Melbourne, Australia. Journal of Analytical Toxicology, 2017, 41, 318-324.	1.7	46
51	In Vitro and In Vivo Metabolite Identification Studies for the New Synthetic Opioids Acetylfentanyl, Acrylfentanyl, Furanylfentanyl, and 4-Fluoro-Isobutyrylfentanyl. AAPS Journal, 2017, 19, 1102-1122.	2.2	76
52	Fentanyl Formulations in the Management of Pain: An Update. Drugs, 2017, 77, 747-763.	4.9	65
53	A review: Fentanyl and non-pharmaceutical fentanyls. Drug and Alcohol Dependence, 2017, 171, 107-116.	1.6	286
54	Pharmacokinetics and safety of fentanyl sublingual spray and fentanyl citrate intravenous: a multiple ascending dose study in opioid-naÃ ⁻ ve healthy volunteers. Current Medical Research and Opinion, 2017, 33, 1921-1933.	0.9	3
55	Post-mortem review of fentanyl-related overdose deaths among identified drug users in Southern Bavaria, Germany, 2005–2014. Drug and Alcohol Dependence, 2017, 180, 286-291.	1.6	21
56	Extended-release of opioids using fentanyl-based polymeric nanoparticles for enhanced pain management. RSC Advances, 2017, 7, 47904-47912.	1.7	18
57	ACMT and AACT Position Statement: Preventing Occupational Fentanyl and Fentanyl Analog Exposure to Emergency Responders. Journal of Medical Toxicology, 2017, 13, 347-351.	0.8	16
58	Getting Drugs Across Biological Barriers. Advanced Materials, 2017, 29, 1606596.	11.1	149

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59	Fentanyl novel derivativeâ€related deaths. Human Psychopharmacology, 2017, 32, e2605.	0.7	26
60	Pharmacokinetics and safety of fentanyl sublingual spray and fentanyl citrate intravenous: a single ascending dose study in opioid-naĀ ⁻ ve healthy volunteers. Current Medical Research and Opinion, 2017 33, 1915-1920.	7, 0.9	5
61	Identification and physicochemical characterization of 4â€fluorobutyrfentanyl (1â€{(4â€fluorophenyl)(1â€phenethylpiperidinâ€4â€yl)amino)butanâ€1â€one, 4â€FBF) in seized mate biological samples. Drug Testing and Analysis, 2017, 9, 405-414.	rials and po stâ€m o	rte 38
62	Medikamentöse Schmerztherapie. , 2017, , 391-483.		0
63	Fentanyl, fentanyl analogs and novel synthetic opioids: A comprehensive review. Neuropharmacology, 2018, 134, 121-132.	2.0	460
64	ACMT and AACT position statement: preventing occupational fentanyl and fentanyl analog exposure to emergency responders. Clinical Toxicology, 2018, 56, 297-300.	0.8	30
65	ls the transdermal fentanyl patch an efficient way to achieve acute postoperative pain control?. Medicine (United States), 2018, 97, e13768.	0.4	4
66	Protective role of fentanyl in lipopolysaccharide‑induced neuroinflammation in BV‑2 cells. Experimental and Therapeutic Medicine, 2018, 16, 3740-3744.	0.8	8
67	E-cigarettes—An unintended illicit drug delivery system. Drug and Alcohol Dependence, 2018, 192, 98-111.	1.6	90
68	Novel Synthetic Opioids: The Pathologist's Point of View. Brain Sciences, 2018, 8, 170.	1.1	40
69	Sensitive Determination of Fentanyl in Low-Volume Serum Samples by LC-MS/MS. AAPS PharmSciTech, 2018, 19, 2812-2817.	1.5	7
70	Abuse of fentanyl: An emerging problem to face. Forensic Science International, 2018, 289, 207-214.	1.3	122
71	Pharmacokinetics of Fentanyl Sublingual Spray in Opioid-NaÃ ⁻ ve Participants: Results of a Phase 1, Multiple Ascending Dose Study. Clinical Drug Investigation, 2018, 38, 715-726.	1.1	3
72	Fentanyls and the safety of first responders: Science and recommendations. American Journal of Industrial Medicine, 2018, 61, 633-639.	1.0	16
73	Opioid-Based Anesthesia and Analgesia for Adult Cardiac Surgery: History and Narrative Review of the Literature. Journal of Cardiothoracic and Vascular Anesthesia, 2019, 33, 808-816.	0.6	54
74	Can't take the heat: sauna and Fentanyl patch intoxication. Clinical Toxicology, 2019, 57, 219-219.	. 0.8	4
75	Fast increase of postmortem fentanyl blood concentrations after transdermal application: A call to careful interpretation. Forensic Science International, 2019, 302, 109896.	1.3	5
76	Evaluation of soluble fentanyl microneedles for loco-regional anti-nociceptive activity. International Journal of Pharmaceutics, 2019, 564, 485-491.	2.6	21

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77	The role of take-home naloxone in the epidemic of opioid overdose involving illicitly manufactured fentanyl and its analogs. Expert Opinion on Drug Safety, 2019, 18, 465-475.	1.0	24
78	Effects of a Preoperative Transdermal Fentanyl Patch on Proinflammatory Cytokine and Pain Levels During the Postoperative Period: A Randomized Controlled Trial. Surgical Laparoscopy, Endoscopy and Percutaneous Techniques, 2019, 29, 339-343.	0.4	8
79	The Fentanyl Epidemic and Evolution of Fentanyl Analogs in the United States and the European Union. Clinical Chemistry, 2019, 65, 242-253.	1.5	112
80	Patch Problems? Characteristics of Transdermal Drug Delivery System Exposures Reported to the National Poison Data System. Journal of Medical Toxicology, 2020, 16, 33-40.	0.8	4
81	A deadly trend in fentanyl fatalities (England, 1998–2017). British Journal of Clinical Pharmacology, 2020, 86, 437-444.	1.1	19
82	Contact transfer risk from fentanyl-contaminated RSDL® Kit. Toxicology Letters, 2020, 319, 237-241.	0.4	5
83	A Novel Clinical Consideration to Conserve Parenteral Fentanyl During the COVID-19 Pandemic. Anesthesia and Analgesia, 2020, 131, 1355-1357.	1.1	1
85	Transdermal buprenorphine for acute postoperative pain: a systematic review. Brazilian Journal of Anesthesiology (Elsevier), 2020, 70, 419-428.	0.2	3
86	Case Report: Intoxication in a Pig (Sus Scrofa Domesticus) After Transdermal Fentanyl Patch Ingestion. Frontiers in Veterinary Science, 2020, 7, 611097.	0.9	3
87	Rates of Fentanyl Positivity in Neonatal Urine Following Maternal Analgesia During Labor and Delivery. journal of applied laboratory medicine, The, 2020, 5, 686-694.	0.6	8
89	Malleable Hydrogel Embedded with Micellar Cargoâ€Expellers as a Prompt Transdermal Patch. Advanced Healthcare Materials, 2020, 9, e2000876.	3.9	13
90	Fentanyl transdermal patch: The silent new killer?. Forensic Science International: Reports, 2020, 2, 100104.	0.4	3
91	Evaluation of Heat Effects on Transdermal Nicotine Delivery In Vitro and In Silico Using Heat-Enhanced Transport Model Analysis. AAPS Journal, 2020, 22, 82.	2.2	6
92	Protracted renal clearance of fentanyl in persons with opioid use disorder. Drug and Alcohol Dependence, 2020, 214, 108147.	1.6	49
93	New Psychoactive Substances and Law Enforcement Responses in a Local Context in China—a Case Study of Methcathinone. Asian Journal of Criminology, 2020, 15, 267-284.	1.1	4
94	The Role of Peripheral Opioid Receptors in Triggering Heroin-induced Brain Hypoxia. Scientific Reports, 2020, 10, 833.	1.6	6
95	Discovery of 3-((dimethylamino)methyl)-4-hydroxy-4-(3-methoxyphenyl)-N-phenylpiperidine-1-carboxamide as novel potent analgesic. European Journal of Medicinal Chemistry, 2020, 189, 112070.	2.6	5
96	Structure Elucidation of Urinary Metabolites of Fentanyl and Five Fentanyl Analogs using LC-QTOF-MS, Hepatocyte Incubations and Synthesized Reference Standards. Journal of Analytical Toxicology, 2021, 44, 993-1003.	1.7	12

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97	Relative addictive potential of opioid analgesic agents. Pain Management, 2021, 11, 201-215.	0.7	5
98	Design, Synthesis, and Structure–Activity Relationship Exploration of Alkyl/Phenylalkyl Piperidine Analogues as Novel Highly Potent and Selective μ Opioid Receptor Agonists. ACS Chemical Neuroscience, 2021, 12, 285-299.	1.7	3
101	Glutathione ethyl ester reverses the deleterious effects of fentanyl on ventilation and arterial blood-gas chemistry while prolonging fentanyl-induced analgesia. Scientific Reports, 2021, 11, 6985.	1.6	18
102	Pediatric opioid fatalities: What can we learn for prevention?. Journal of Forensic Sciences, 2021, 66, 1410-1419.	0.9	2
103	11-Year Study of Fentanyl in Driving Under the Influence of Drugs Casework. Journal of Analytical Toxicology, 2022, 46, 337-341.	1.7	7
104	Long-Term Analgesia following a Single Application of Fentanyl Transdermal Solution in Pigs. European Surgical Research, 2021, 62, 115-120.	0.6	6
105	Predicting the Membrane Permeability of Fentanyl and Its Analogues by Molecular Dynamics Simulations. Journal of Physical Chemistry B, 2021, 125, 8443-8449.	1.2	7
106	An integrated biophysical model for predicting the clinical pharmacokinetics of transdermally delivered compounds. European Journal of Pharmaceutical Sciences, 2021, 167, 105924.	1.9	10
107	Opium poisoning following selfâ€medication of radiationâ€induced dermatitis with topical use of opi latex traditional extract; a teaching case. Clinical Case Reports (discontinued), 2021, 9, e04661.	ium 0 . 2	1
108	Pronounced declines in dispensed licit fentanyl, but not fentanyl derivatives. Research in Social and Administrative Pharmacy, 2022, 18, 3046-3051.	1.5	5
109	Acute Cytotoxic Cerebellar Edema Subsequent to Fentanyl Patch Intoxication in an Infant. Case Reports in Critical Care, 2021, 2021, 1-5.	0.2	2
110	Fentanyl Patch in Reducing Intractable Pain in Patients with Amyotrophic Lateral Sclerosis: A Case Report. Palliative Care Research, 2021, 16, 179-184.	0.0	0
112	Sufentanil Preconditioning Protects Against Hepatic Ischemia-Reperfusion Injury by Suppressing Inflammation. Medical Science Monitor, 2019, 25, 2265-2273.	0.5	20
113	Pharmacology of Opioids in the Treatment of Chronic Pain Syndromes. Pain Physician, 2011, 4;14, E343-E360.	0.3	79
114	Quantification of Fentanyl in Human Serum by Column-Switching Liquid Chromatography and Tander Mass Spectrometry. Journal of Bioanalysis & Biomedicine, 2011, 03, .	m 0.1	3
115	Efficacy of fentanyl transdermal patch in pain control after lower third molar surgery: A preliminary study. Medicina Oral, Patologia Oral Y Cirugia Bucal, 2016, 21, 0-0.	0.7	5
116	ER/LA opioid REMS supplement. Journal of Opioid Management, 2023, 10, 1-48.	0.2	3
117	Fatal Transdermal Fentanyl Patch Overdose in a Child. Cureus, 2020, 12, e6755.	0.2	3

#	Article	IF	CITATIONS
118	Thirteen Cases of Valeryl Fentanyl in Michigan. American Journal of Forensic Medicine and Pathology, 2021, 42, 367-372.	0.4	5
119	Why are US military personnel prescribed transdermal fentanyl patches?. BMJ Military Health, 2023, 169, 335-339.	0.4	Ο
120	Comparison of an Additional Transdermal Fentanyl Patch Compared to Intravenous NSAID and Opioid Analgesics within 24 Hours of an Uterine Artery Embolization for Myoma and Adenomyosis. Journal of the Korean Society of Radiology, 2011, 64, 449.	0.1	1
121	Some Other Pharmacologically Active Drugs. Issues in Toxicology, 2012, , 155-247.	0.2	Ο
125	Understanding the Agent, Part III: Specific Drugs. , 2018, , 73-97.		0
126	Epidemiology: Opioid Use and Related Disorders. Current Clinical Psychiatry, 2019, , 19-48.	0.2	0
127	COMPARISON OF BUPIVACAINE AND BUPIVACAINE WITH FENTANYL IN LOWER LIMB ORTHOPAEDIC SURGERIES. International Journal of Medical and Biomedical Studies, 2019, 3, .	0.0	0
128	Perbandingan nyeri akut, status hemodinamik, dan efek samping pada pasien low back pain pascalaminektomi antara pemberian terapi adjuvan oksikodon intravena dengan fentanil patch. Intisari Sains Medis, 2020, 11, 658.	0.1	0
129	Fentanyl transdermal patches: Extraction and evaluation of a novel disposal method using NarcX ®. Journal of Forensic Sciences, 2021, , .	0.9	0
130	Optimization of the medication-use process for fentanyl patches at a small community hospital. American Journal of Health-System Pharmacy, 2021, , .	0.5	0
131	Clinical pharmacy in pediatric palliative care. Klinicka Farmakologie A Farmacie, 2020, 34, 90-92.	0.1	0
132	Basic Substance Characteristics and Neuropathological Findings in Drug Abusers. , 2021, , 23-87.		Ο
133	Pharmacokinetics of a Novel, Transdermal Fentanyl Solution in Rhesus Macaques (). Journal of the American Association for Laboratory Animal Science, 2017, 56, 443-451.	0.6	6
134	Fentanyl: Polymorphisms, and adverse events. , 2022, , 45-56.		0
135	Transdermal Fentanyl Death Pact. American Journal of Forensic Medicine and Pathology, 2022, 43, e18-e20.	0.4	1
136	Nitrosyl factors play a vital role in the ventilatory depressant effects of fentanyl in unanesthetized rats. Biomedicine and Pharmacotherapy, 2022, 146, 112571.	2.5	14
138	Study on the Mechanism of Fentanyl in Pain Treatment Based on Network Pharmacology. Journal of Healthcare Engineering, 2022, 2022, 1-6.	1.1	3
140	Utilisation du fentanyl transdermique chez le nouveau-né en soins palliatifs, à propos de trois cas. Medecine Palliative, 2022, , .	0.0	0

#	Article	IF	CITATIONS
141	Long-Lasting Analgesia With Transdermal Fentanyl: A New Approach in Rat Neonatal Research. Frontiers in Pharmacology, 2022, 13, 798011.	1.6	0
142	Predicting transdermal fentanyl delivery using physics-based simulations for tailored therapy based on the age. Drug Delivery, 2022, 29, 950-969.	2.5	6
143	Comparaison of Efficacy and Safety of Fentanyl Transdermal Patch with Oral Ketorolac for Pain Management in Dry Socket: A Randomized Clinical Trial. Journal of Maxillofacial and Oral Surgery, 0, , 1.	0.6	0
144	Extended-Release and Long-Acting Opioids for Chronic Pain Management. Journal of Opioid Management, 2023, 10, 3-10.	0.2	0
145	Grundlegende Substanzmerkmale und neuropathologische Befunde bei Drogenkonsumenten. , 2022, , 23-90.		0
146	Drug Metabolism. Lessons From the ICU, 2022, , 91-107.	0.1	0
147	Synthetic opioids: a review and clinical update. Therapeutic Advances in Psychopharmacology, 2022, 12, 204512532211396.	1.2	7
148	Oral and buccal abuse of transdermal opioids : an underdetected but potentially lethal practice. Acta Anaesthesiologica Belgica, 2021, 72, 55-61.	0.0	1
149	Safety Considerations of Fentanyl Transdermal Patches Used for Third Molar Surgery Pain Relief. Journal of Maxillofacial and Oral Surgery, 0, , .	0.6	0
150	Atypical Fentanyl Transdermal Patch Consumption and Fatalities: Case Report and Literature Review. Toxics, 2023, 11, 46.	1.6	3
151	Use of Liquid ChromatographyTandem Mass Spectrometry to Quantify and Confirm the Fentanyl Metabolite <i>N</i> -[1-(2-Phenethy-4-Piperidinyl)] Maloanilinic Acid in Equine Urine for Doping Control. Journal of Analytical Toxicology, 2023, 47, 393-402.	1.7	0
152	Evaluating the performance of the Roche FEN2 fentanyl immunoassay and its clinical implementation: The role of LDT-based mass spectrometry testing. Journal of Mass Spectrometry and Advances in the Clinical Lab, 2023, 28, 105-113.	1.3	2
153	Cytotoxic effects of psychoactive isobutyrylfentanyl and its halogenated derivatives on isolated rat hepatocytes. Journal of Applied Toxicology, 0, , .	1.4	0
158	Substance Use Disorder. , 2024, , 413-420.		ο