

Supplemental table e-1. Comparison of Cases

Cause of Death Epileptologists	Cause of Death POST SCD	Race	Age	Gender	Antiseizure Drugs	Toxicology	Medical Co- morbidities
SUDEP	SUDEP	White	31	F	LEV, LTG	Venlafaxine 1.50mg/L, caffeine, Venlafaxine Metabolite	
SUDEP	SUDEP	Black	54	M	GBP, PHT	Delta 9-Carboxy THC 70ng/ML & Delta 9 THC 15ng/ML, cotinine, caffeine, nicotine	Intracranial atherosclerosis
SUDEP	SUDEP	White	27	F	VPA, LEV	nicotine	
SUDEP	SUDEP	Hispanic	43	M	CBZ	nicotine, Carbamazepine-10 11 Epoxide 2.4mg/L, Carbamazepine 10mg/L, caffeine	
SUDEP	Cardiac hypertensive disease	White	52	M	PHT	Delta 9-THC <1ng/ml & Delta 9- Carboxy THC +	LVH, HTN, Early Repolarization
SUDEP	SUDEP	Hispanic	48	F	LEV, PHT	Delta 9-Carboxy 8ng/ml, Phenytoin 4.2mg/L	Brain Abscess, Cerebellar atrophy
SUDEP	SUDEP	Black	67	F	PHT		A-fib, Anemia, cancer (colon), bowel obstruction, pleural effusion s/p thoracotomy
SUDEP	Cardiomyopathy Non-ischemic/ Dilated/ Idiopathic	White	29	M	CBZ	delta 9-Carboxy THC 6.6ng/ml, Carbamazepine -10 11 epoxide 1.1mg/ml, carbamazepine 3.7 mg/L, Delta 9-THC 1ng/ml, caffeine	Hepatitis B, hepatitis A
Possible SUDEP	Incarcerated hernia	White	61	M	LEV		Cancer (leukemia)
Possible SUDEP	Chemical overdose	White	50	M	DZP, GBP, PGB, PHB	pseudoephedrine 760ng/ml, oxazepam 7ng/ml, nordiazepam 344 ng/ml, norpseudoephedrine 34 ng/ml, diazepam 270 ng/ml, gabapentin 2.5 mg/ml, PHB 1.5 mg/L, morphine 0.36 mg/L	GERD
Possible SUDEP	Hypertrophic cardiomyopathy	White	64	M	PHT, PHB	Phenobarbital 15 mg/L	CVA/Stroke, LVH, PAC's

Possible SUDEP	Non-cardiac chemical overdose	Black	53	F	VPA	benzoylecgonine .17mg/l, valproic acid 17mg/l, citalopram 1mg/l, quetiapine 0.91mg/l, temazepam 0.79mg/l, Delta 9- carboxy THC 0.79mg/l, morphine 0.14 mg/l, amitriptyline 0.14mg/l	COPD, CVA/Stroke, Hepatitis C , pneumonia
Possible SUDEP	Cardiomyopathy Alcoholic	White	66	M	PHT		A-fib, anemia, CAD, CKD, Stroke, Hepatitis B, Hepatitis C, HTN, MI, chronic pancreatitis
Possible SUDEP	Acute CAD Acute coronary lesions	White	41	M	Unknown	Delta 9-carboxy THC 22ng/ml, Delta 9-THC 12ng/ML, nictoine/continine +, Caffeine+	
Possible SUDEP	Hypertensive heart disease	White	79	F	LZP		Stroke, HTN, LVH, TIA, dementia
Possible SUDEP	Chronic coronary lesions	Black	72	M	LTG, LEV	lamotrigine 3.6mg/L, Levetiracetam 14mg/l, chloroheniramine <0.05mg/l, Dextromethorphan <0.05mg/L	Angina, cancer (prostate), CKD, DM, Dyslipidemia, HTN, ARF
Possible SUDEP	Hypertensive heart disease	Hispanic	92	F	OXC		heart block, A-tach, aortic and mitral regurgitation, CAD, CKD, HTN, Stroke, LVH, MI, Vascular disease, Alzheimer's
Possible SUDEP	Acromegaly Cardiomyopathy	White	63	M	None	Delta 9-THC 9ng/ml, Delta 9-carboxy THC 60ng/ml,& 11 Hydroxy Delta 9 1ng/ml	A-Fib, Cancer (acromegaly 2/2 pituitary macroadenoma), Hypotension, panhypopituitarism, acromegaly
Acute symptomatic seizure	Acute alcohol withdrawal	Black	52	M	None		Anemia, Cancer(renal), LVH, MI, degenerative joint disease

Acute symptomatic seizure	Cardiomyopathy - Alcoholic	Asian	41	M	LZP, chlordiazepoxide	Methanol <10mg/dl, methadone <10mg/dl, ethanol 0.02%, nicotine/continine +, nicotine, caffeine +	Hepatitis B
Acute symptomatic seizure	Non-Cardiac chemical overdose	White	58	M	GBP	Ethanol 0.26%, Nordiazepam 0.05mg/l, continine +, caffeine +,	CAD, COPD, Hepatitis B, HTN, MI, other Hematopoetic, PAD, cerebral palsy
Acute symptomatic seizure	Hypertensive Heart Disease	Asian	73	M	Unknown		Dyslipidemia, HTN, RBBB
Acute symptomatic seizure	Cardiomyopathy Alcoholic	Hispanic	55	M	LZP	acetone <10, Chlordiazepoxide 0.14mg/l, nordiazepam 0.09 mg/l, caffeine +	A-fib, Anemia, CAD, Cardiomegaly, cardiomyopathy, CHF, hepatitis C, HTN, liver disease, lung disease, LVH, pneumonia, TB, CHF, tricuspid regurgitation
Not SUDEP	Non-Cardiac chemical overdose	White	62	F	LZP, GBP, CLZ	desalkylflurazepam 83 ng/ml, hydroxyethylflurazepam 6ng/ml, flurazepam 4ng/ml, 7 ammino clonazepam 33ng/ml, delta 9 carboxy THC 15 ng/ml, oxymorphone 10ng/ml, trazodone 1.8mg/ml, oxycodone 0.30mg/ml	Asthma, COPD, Dyslipidemia, HTN, Hypothyroidism
Not SUDEP	Non-Cardiac chemical overdose	White	51	M	None	Delta 9-Carboxy THC 19ng/ml, Methadone 1.56mg/l, delta 9-thc <1ng/ml, 11 hydroxy Delta 9-THC <1ng/ml, Ethanol 0.25%, Diphenhydramine 0.19mg/l, Methadone metabolite +	thrombocytopenia
Not SUDEP	Infection Pneumonia	Hispanic	76	M	PHT, GBP	gabapentin 73mg/l, morphine 0.36mg/l, nicotine +, desipramine +	anemia, cardiomyopathy, dyslipidemia, hepatitis C, HTN, MI, heart block, Meningitis with

							cognitive impairment
Not SUDEP	Pulmonary Embolism	White	67	M	Unknown		A-Fib, CAD (prior MI), HTN, NSVT, RBBB
Not SUDEP	Cardiomyopathy Non-ischemic/ Dilated/ Idiopathic	Black	49	F	Unknown	Risperidone 4.3ng/ML, 9-Hydroxyrisperidone 4.3 ng/ml, diphenhydramine 0.12 mg/l, Caffeine +	Stroke, TIA
Not SUDEP	Non-Cardiac chemical overdose	Black	57	F	GBP	Delta 9-Carboxy THC <1ng/ml, Benzoylcegonine 0.96mg/l, Methadone 0.40mg/l, methadone Metabolite +	Asthma, hepatitis C, HIV/AIDS, HTN,
Not SUDEP	Non-Cardiac Asphyxia due to food bolus	Hispanic	57	M	Unknown	Methadone 1.66mg/l, Ethanol 0.28%, Venlafaxine 0.05mg/L, Cotinine +, Methadone Metabolite +	COPD, Stroke, TBI, dementia
Not SUDEP	Pulmonary artery dissection	White	57	F	CBZ, PHT	phenytoin 2.9mg/l, Carbamazepine 2.0 mg/L, carbamazepine-10, 11 Epoxide 0.34 mg/L	Anemia, Aortic aneurysm, Aortic insufficiency, LVH, Mitral regurgitation, valvular disease, syncope, TBI, developmental delay
Not SUDEP	Acute CAD Myocardial Rupture	White	68	M	PHT	phenytoin 0.98mg/l	Asthma, CAD, Prostate Cancer, Dyslipidemia, Gout, HTN, goiter, hyperglycemia, sleep apnea, obesity
Not SUDEP	Pulmonary Embolism	White	57	F	None	Delta 9-thc 8ng/ML & Delta 9-carboxy THC 41ng/ml	PAD, PE
Not SUDEP	Chronic CAD Healed MI	White	87	M	None	Mirtazapine 0.07mg/l	A-fib, A-tach, GERD, gout, Hepatitis B, HTN, MI, Pacemaker implant, prostatic

							Hypertrophy, heart block
Not SUDEP	Chronic CAD Ischemic CM	White	82	M	Unknown		heart block, CAD, Cancer (basal cell carcinoma), COPD, Stroke, dyslipidemia, HTN, MI, acute pancreatitis
Not SUDEP	Chronic CAD healed MI	Other	60	M	Unknown	Caffeine +	
Not SUDEP	Pulmonary Embolism	White	43	M	PHT, LZP	continine +, Caffeine +	Unknown
Not SUDEP	Intracranial Hemorrhage	Black	70	F	PHB, PHT	volatiles 0	Aortic Stenosis, GERD, Early Repolarization, HTN, mitral regurgitation, diverticulitis s/p hemicolectomy
Not SUDEP	Non-cardiac: Other Hemorrhage	Other	52	M	None		A-fib, CHF, HTN, other respiratory (sleep apnea)

A-fib: atrial fibrillation, A-tach: atrial tachycardia, CAD: coronary artery disease, CBZ: carbamazepine, CHF: congestive heart failure, CKD: chronic kidney disease, CLZ: clonazepam, CM: cardiomyopathy, COPD: chronic obstructive pulmonary disease, DZP: diazepam, GBP: gabapentin, GERD: gastroesophageal reflux disease, HTN: hypertension, LEV: levetiracetam, LVH: left ventricular hypertrophy, LZP: lorazepam, LTG: lamotrigine, MI: myocardial infarction, NSVT: non-sustained ventricular tachycardia, OXC: oxcarbazepine, PAD: peripheral artery disease, PGB: pregabalin, PHT: phenytoin, RBBB: right bundle branch block, TBI: traumatic brain injury, TIA: transient ischemic attack, VPA: valproate