Index

Note: Page numbers followed by f or t refer to Figures or Tables

abrasions, 251 abusive head trauma (AHT) anatomy, 208 brain oedema, swelling and hypoxic ischaemic brain injury, 236-239 cortical contusions, 235 diffuse axonal injury (shear injury), 235-236 extradural haemorrhage, 234 incidence and extent, 256 injury patterns, 207-208 intracranial manifestations, 218-219 investigation of, 217 scalp injury, 209 skull fracture mimics, 214-217 skull injury, 209-213 subarachnoid haemorrhage, 233-234 subdural haemorrhage, 219-233 time of injury estimates, 213-214 accessory sutures, 214 acute behavioural disorder. See excited delirium syndrome adolescents, 93, 259 AEIOU TIPS mnemonic, 105t agitated delirium. See excited delirium syndrome alcohol use/abuse brief interventions and, 202 child abuse and, 261-262 driving impairment and, 153-155, 162–163, 172 police custody and, 181-183, 185-189, 191, 195, 202-203 Alcohol Use Disorders Identification Test (AUDIT), 202

Alcolizer LE®, 163 alprazolam, 166 American College of Emergency Physicians (ACEP), 99, 190 amphetamines, 157-158. See also amphetamine-type stimulants: methamphetamines amphetamine-type stimulants (ATS), 163-165. See also amphetamines amplification process, 7-8, 11, 23 anthrax, 189 antipsychotics, 106-110 antisocial personality disorder, 145, 147-148 archaeological recovery of human remains, 277-279, 314-316 Argentina, 270, 273 Argentine Forensic Anthropology Team (EAAF), 271 arteriosclerosis, 133 asphyxia, 91, 92 Association for the Recovery of Historical Memory, 271 asthmatics, 55, 181-183, 192 Attorney General's Reference (No. 2 of 1992), 132 Australasian Association of Forensic Physicians (AAFP), 26-30 autoclaving, 15t, 19-20 autoerotic deaths definition. 83-84 historical perspectives, 81-83 incidence, 85 investigation of, 86-88 methods of, 88-92 victims of, 92-94

 (\bullet)

 (\mathbf{A})

Current Practice in Forensic Medicine, Volume 2. Edited by John A.M. Gall and J. Jason Payne-James. © 2016 John Wiley & Sons, Ltd. Published 2016 by John Wiley & Sons, Ltd.

Autoerotic Fatalities (Hazelwood, Dietz & Burgess), 83 automatism arteriosclerosis and, 133 cerebral tumour/oedema and, 133 concussion and, 133 confusion about, 119-120 definitions, 120-121 degree of impairment and, 123 diabetes and, 121, 123-125, 134 epilepsy and, 121-122, 131-132 internal-external test, 122 legal perspectives, 121-123 multiple sclerosis and, 132-133 prescription drugs and, 133-134 psychiatric disorders and, 129-131 reform proposals, 135 self-induced intoxication and, 122 sentencing and mitigation, 134-135 sleep disorders and, 125-129 avoidant/anxious (avoidant)/dependent personality disorder, 148-149 bath salts, 35, 37, 101 Bell, Luther, 98 Bell's Mania, 98 benzodiazepines, 106-108, 166 benzoylecgonine, 157, 158t, 166 beta radiation, 15t, 16 bleach, 15t, 18-19 blood alcohol concentration (BAC), 162-163 body wrapping, 92 borderline and emotionally unstable personality disorder, 145-147 Bosnia-Herzegovina, 272 brain oedema/swelling, 235-238 brain tumors, 189 Bratty (legal case), 120, 131 Brief Jail Mental Health Screen (BJMHS), 201 Brief Psychiatric Rating Scale, 184 Broome v Perkins (1987), 123, 135 bruises, 248-250, 263t Burgess (legal case), 126 burns, 253-255, 263t

cannabis, 157, 165–166, 202 cardiac rhythm analysis, 102 cathinones, 37, 42, 101, 165 cause of death determination, 279–281 cell-free nucleic acid (CNA), 11 cephalhaematomas, 209 cerebral tumour/oedema, 133 child abuse. See also child abuse, head trauma contributing and risk factors, 246 definitions, 244 fabricated or induced illness, 257-258 general signs and symptoms, 246-247 mimic conditions, 262-264 neglect, 260 overview, 243 physical signs, 247-257 physician's role in detection, 244-246 screening instruments, 260-262 suspect clinical presentations, 259–260 child abuse, head trauma. See also child abuse anatomy of head, 208 brain oedema, swelling and hypoxic ischaemic brain injury, 236-239 cortical contusions, 235 diffuse axonal injury (shear injury), 235-236 extradural haemorrhage, 234 incidence and extent, 256 injury patterns, 207-208 intracranial manifestations, 218-219 investigation of, 217 mimics of skull fractures, 214-217 scalp injury, 209 skull injury, 209-213 subarachnoid haemorrhage, 233-234 subdural haemorrhage, 219-233 time of injury estimates, 213-214 Child Protection Register (CPR), 261 children, 51, 93. See also child abuse; child abuse, head trauma Chile, 270, 272 choking games, 93 cholecystokinin (CCK), 50 chyme, 49, 50 citalopram, 134 clinical forensic medicine deaths and other harm in police custody, 185 - 189excited delirium syndrome and, 190-191 healthcare delivery and, 179-180 healthcare problems of detainees, 180-185 mental health screening and referral, 197 - 202prevention of death and harm, 202-203 risk assessment, 191-197

318

 (\bullet)

7/1/2016 7:23:00 PM

 (\bullet)

clonazepam, 158t cocaine brief interventions and, 202 driving impairment and, 157, 158t, 166 excited delirium syndrome and, 98-99, 101 codeine, 167-168 Colombia, 271 Combined DNA Index System (CODIS), 9 comingled remains, 282-283 communications, 295 community liaison nurses (CLN), 261 computed tomography (CT), 217, 224-228, 233, 235-239 conducted electrical weapons (CEWs). See TASER® International devices conducted energy devices (CEDs). See TASER® International devices confusional arousal/sudden arousal disorders, 127 cooling measures, 111-112 cortical contusions, 235 Cox v Rawlinson (2010), 121 Crime and Courts Act 2013, 157 crimes against humanity complex cases, 282-283 forensic anthropology and, 269-272 investigatory phases, 275-281 legal framework, 274 misconceptions about, 274-275 multidisciplinary approaches, 281-282 recommendations, 283-284 types of cases, 273 cross-dressing, 82, 84, 86-88, 93-94 data triangulation, 36 death, cause of. See cause of death determination death, time of. See time of death "Decade for Road Safety," 153 decontamination. See also laboratory cleaning autoclaving, 15t, 19-20 beta and gamma radiation, 15t, 16 commercially available solutions for, 29 databases and, 31 DNA damage, 14-20 DNA denaturation, 13-14 ethylene oxide, 15t, 17-18, 20 evaluation of, 30 selection issues, 12 sodium hypochlorite (bleach), 15t, 18–19

stability of DNA molecule, 12-13 sterilization techniques, 14, 15t, 21 UV radiation, 14-16 denaturation, 13-14 dental/oral lesions, 257 diabetics automatism and, 121, 123-125, 134 gastric content analysis and, 55 police custody and, 181-183, 192 Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-V), 100, 140-141, 143 diazepam (Valium®), 107t, 108, 158t diffuse axonal injuries (DAI) (shear injuries), 235–236 digestion, 48-49, 55 dihydrocodeine, 167 DNA contamination, 2-5 DNA interpretation, 9-11, 281-282 DNA profiling amplification process, 7-8, 11, 23 developments in, 6 electrophoresis, 8-9 extraction and quantification, 7 overview, 9 sample collection, 6-7, 276 dopamine, 101-102 double swabbing techniques, 7 doughnut lesions, 216 Driver and Vehicle Licensing Agency (DVLA), 169-170 driving impairment alcohol and, 162-163 amphetamine-type stimulants and, 163-166 benzodiazepines and, 166 causes of, 153-155 cocaine and benzoylecgonine and, 166 forensic specimens and, 168-169 gammahydroxybutrate and, 168 ketamine and, 168 legal approaches, 155-158 medical conditions and fitness to drive, 169-171 opiates and, 167-168 police custody and, 188-189 sleep deprivation and, 171–172 sobriety assessment, 158-162 Z drugs and, 167 Driving Under the Influence of Drugs (DUID), 159

319

 (\bullet)

 (\bullet)

320

droperidol (Inapsine®), 107t, 108 Drug Evaluation and Classification Program (DEC), 158 Drug Recognition Expert Programs (DREs), 158-159 drug use/abuse. See also specific drugs such as benzodiazepines child abuse and, 261-262 driving impairment and, 153-155 police custody and, 181-183, 185-191, 197, 202-203 DRUID Project (Driving under the Influence of Alcohol, Drugs and Medicines), 155, 162, 168, 170-171 early evidence kits (EEK), 30 electrocution, 92 electronic control devices (ECDs). See TASER[®] International devices electrophoresis, 8-9 El Salvador, 270 emotional abuse, 244 emotionally unstable personality disorder, 145-147 environmental hazards, 300 epilepsy, 121-122, 131-132, 181-182, 192 equipment, 292-293, 296-297, 313 escape mechanisms, 84 Ethiopia, 270 ethylene oxide, 15t, 17-18, 20 European Monitoring Centre for Drugs and Drugs Addiction (EMCDDA), 36 European Standard Set (ESS), 9 excited delirium syndrome (ExDS) aetiology, 101-102 definitions and overview, 97-100 diagnosis, 103-104 initial approach and work-up, 104-106 medication treatment, 106-110 memory aids for law enforcement, 112-114, 192f risk factors for, 190-191 supportive treatment, 110–112 exhumation/excavation of human remains, 277-279, 314-316 explosives, 299 extraction of DNA, 7 extradural haemorrhage (EDH), 234 eye trauma, 256

fabricated or induced illness, 257-258 Faculty of Forensic and Legal Medicine (FFLM) of the Royal College of Physicians, 26-30, 203 failure to thrive, 263t Fast Alcohol Screening Test (FAST), 202 fasting, 49 field missions administration and logistics, 291-295, 312 - 314communications and command. 295.314 equipment, 292-293, 296-297, 313 execution of, 289-291, 312 financial arrangements, 293, 313 goals and objectives, 287-288 International SOS, 297 mission of, 289, 312 mission plan, 289, 312-314 mission plan template, 312-314 personal documentation, 294, 297 reports and diary, 296 security, 295-296, 297-311, 314 situation and background, 288-289, 312 Finegan v Heywood (2000), 121, 135 flunitrazepam, 158t foreign body insertion, 92 forensic clean, 21-22 Forensic Medical Examiner (FME), 181 fractures, 251-253, 263t, 264

gammahvdroxynbutrate (GHB), 168 gamma radiation, 15t, 16 gastric content analysis DNA analysis, 60-61 gastric emptying factors, 53-56 macroscopic, 58-59 measurement methods, 52-53 microscopic, 59-60 motility and emptying, 49-52 Perper's protocol, 57t physiology and, 48-49 qualitative, 58 quantitative, 57 time of death and, 47-48, 53, 61-63 gastrin, 50 gastrointestinal tract, 48 gloves, 28-29 golden triangle of forensic investigation, 86 Goudge Inquiry, 240 gowning, 24, 29

 (\bullet)

()

Guatemala, 270-271 gyral calcifications, 238 haloperidol (Haldol®), 107t, 108-110 hanging, 82, 84, 86-92, 94 head trauma in children. See abusive head trauma healthcare in police custody. See clinical forensic medicine Hennessy (legal case), 119, 124, 125 heroin/diamorphine, 157, 167 high template amplicons, 8 HM Advocate v Aitken (2012), 125 Howie-style laboratory coats, 23 human remains recovery, 277-279, 314-316. See also comingled remains human rights violations. See crimes against humanity hydrocephalus, 238 hyperthermia, 102, 111-112 hypoglycaemia, 121, 123-125, 134 hypopnoea syndrome, 129 hypoxia, 218 hypoxic ischaemic injuries, 238-239 hysterical fugue, 130 impairment offence, 156 improvised explosive devices (IED), 299 infants, 51. See also child abuse; child abuse, head trauma injuries in police custody. See clinical forensic medicine Inquiry into Pediatric Forensic Pathology, 240 International Association of Chiefs of Police (IACP), 158 International Classification of Diseases (ICD-10), 100, 140 International Commission on Missing Persons, 271 International Criminal Court, 270 International Criminal Tribunal for Rwanda, 270 International Criminal Tribunal for the Former Yugoslavia, 270 International Laboratory Accreditation Co-operation (ILAC), 22-23 International Personality Disorder Examination (IPDE), 144 International SOS, 297 interpreters, 292, 302, 308, 313

intoxication, 122. See also alcohol use/ abuse: drug use/abuse intracranial injuries, 218-219 intravenous fluids for excited delirium syndrome, 110-111 investigation techniques, 275-276, 284 irritant sprays (IS), 185 Jama, Farah Abdulkadir, 2-4 Jeffreys, Alec, 6 Kav v. Butterworth (1945), 121 ketamine driving impairment and, 157, 158t, 168 for excited delirium syndrome, 106-107. 109-110 khat leaves, 165 Kiesewetter, Michele, 2 laboratory cleaning. See also decontamination AAFP/FFLM procedures, 26-30 databases and, 31 erroneous assumptions, 21-22 evaluation of, 30 good practices, 23-26 ILAC guidelines, 22-23 lacerations, 251 land mines, 299, 309, 316 legal highs. See novel psychoactive substances legal limits for drugs, 156-158 Leskie, Jaidvn, 5 Lion Intoxilyzer®, 163 Locard's principle, 10 lorazepam (Ativan[®]), 107t, 108, 110, 158t low template analysis, 8 LSD, 157, 158t magnetic resonance imaging (MRI), 217, 226-233, 235-238 marijuana, 157, 165-166, 202 Maroc, 270 mass graves, 314-316 masturbation, 86-87 McGhee v R (2013), 133-134 memorandum of understanding, 291 mental health issues. See psychiatric symptoms; specific issues such as schizophrenia mephedrone (4-methylmethcathinone), 36-39, 42

 (\bullet)

 (\mathbf{A})

322

INDEX

methadone, 158t, 167 methamphetamines (MA), 155, 157, 158t, 164 methoxetamine, 41 methylamphetamine, 163-164 methylenedioxymethamphetamine (MDMA), 155, 157, 158t, 163-164 Mexico, 270 midazolam (Versed®), 107t, 108 migrating motor complex (MMC), 49 Millon Clinical Multiaxial Inventory (MCMI-III), 144 mini-satellites, 6 Minnesota Multiphasic Personality Inventory (MMPI-2), 143 mission diaries and reports, 296 monoacetylmorphine, 158t morphine, 158t motor vehicle accidents. See driving impairment Motor Vehicles (Driving Licenses) Regulations 1999, 169 multiple sclerosis, 132 multiple SIDS, 263t Munchausen syndrome by proxy. See fabricated or induced illness munitions, 299 Mutual Assistance Agreements, 288 National Association of Medical Examiners (NAME), 99, 191 National Poisons Information Service, 37 natural disasters, 273, 283 near-drowning, 259 neglect, 244, 260 NEO-PI-R, 144 neuroticism, 139-140 novel psychoactive substances (NPS) chronic toxicity, 40-41 classes of, 36t deaths, 41 mephedrone, 36-39, 42 synthetic cannabinoid reception agonists, 39-40, 42-43 toxicity, 35-37 NREM parasomnias, 127 nuclear medicine bone scans, 217 nystagmus, 161

obsessive-compulsive/anankastic personality disorder, 148–149 obstructive sleep apnoea, 129 olanzapine (Zyprexa®), 107t, 109 openness to experience, 139-140 opiates, 167-168, 202 oral fluid samples, 168 oxazepam, 158t oxycodone, 167 paranoid personality disorder, 144-145 parietal foramina, 216-217 passports. See visas personality disorders assessment instruments, 143-144 automatism and, 130 categories of, 144-149 definitions and overview, 139-141 diagnostic approaches, 141-142, 143 forensic issues, 149-150 prevalence, 142-143 Personality Inventory for DSM-V (PID), 144 personnel tasks, 290-291, 312 Peru, 270–271 Phantom of Heilbronn, 2 physical abuse accidental vs. non-accidental injury, 247 - 248bruises, 248-250 burns, 253-255 cold injury, 255 defined, 244 dental/oral lesions, 257 eve trauma, 256 fractures, 251-253 human bites, 248, 250-251 lacerations, abrasions and scars, 251 spinal injury, 257 visceral lesions, 255-256 Physicians for Human Rights (PHR), 271 Pitchfork, Colin, 6 poisoning, 259 Police and Criminal Evidence Act 1984, 192 police brutality, 188 police custody. See clinical forensic medicine Police Mental Health Screening Questionnaire (PolQuest), 197-199 polymerase chain reaction (PCR), 6, 8, 11 pornography, 82, 86-87, 94 positive airflow cabinets, 23 post-traumatic stress disorder, 131 Preliminary Impairment Test (PIT), 159-162

 (\bullet)

7/1/2016 7:23:00 PM

 (\bullet)

()

prescription drugs automatism and, 133-134 driving impairment and, 153. 167-168, 171 Prison Screening Questionnaire (PriSnOuest), 198 psychiatric symptoms child abuse and, 261-262 in police custody, 181–184, 200–202 psychosis, 130 quantification of DNA, 7 Ouick (legal case), 119, 124 radioisotope methodology, 52 Railway and Transport Safety Act 2003, 159 random breath testing (RBT), 163 Readiness to Change Ouestionnaire, 202 Ríos Montt, Efrain, 270 risk assessment. See threat assessments roadside drug testing, 155 Road Traffic Act 1988 (RTA), 156, 157, 169 Road Transport (Safety and Traffic Management) Act and Regulation 1999, 155 robotics, 25 R v Ball (2007), 134 R v Bingham (1991), 125 R v Burton, 133 R v C (2007), 125 R v Charlson (1955), 123 R v Clark, 124–125 R v Coley (2013), 122, 130 *R v Gilbert* (2006), 121 R v Harrison (2004), 134 R v Isitt (1978), 123, 130 R v Kemp (1957), 123 R v Lipman (1969), 122 R v Lowe, 127 R v Marison (1997), 121 R v Parks (1992), 119, 123, 126, 129 *R v Poolev* (2013), 122 *R v Pull*, 132 R v Rabey (1980), 131 R v Rigby (2013), 134 R v Roach (2001), 130 R v Smallshire (2008), 134 Rwanda, 270

sample collection, 6–7 scalp injuries, 209 scars, 251 schizoid/schizotypal personality disorder. 144-145 schizophrenia, 101–102 scintigraphy, 53 Scott, Adam, 4-5 security, 289, 295-296, 297-311, 314 self-inflicted injuries, 263t sexsomnia, 127-129 sexual abuse, 244 shaken baby syndrome. See abusive head trauma short tandem repeats (STRs), 6, 9 short-term police custody. See clinical forensic medicine Single Alcohol Screening Question (M-SASQ), 202 skull injuries/fractures estimate of time of injury, 213-214 investigation of, 217 mimics of, 214-217 overview, 209-213 sleep deprivation, 171–172 sleep disorders, 125-129 sleepwalking, 125-126, 135 SMASHED mnemonic, 105t SMEACS mnemonic, 288 sobriety assessment, 158-162 sodium bicarbonate, 111 sodium hypochlorite (bleach), 15t, 18-19 somnambulism, 125-126, 135 South Africa, 270 Spice. See synthetic cannabinoid reception agonists spinal injury, 257 squamous epithelial cells, 10-11 Standard Impairment Assessment (SIA), 161 standardized field sobriety tests (SFST), 158, 164 sterilization techniques, 14, 15t, 21 stomach content analysis. See gastric content analysis stomach physiology, 48 stratum corneum, 10-11 stress, 131 Structured Clinical Interview for DSM-IV (SCID-II), 142, 144 subarachoid haemorrhage (SAH), 233-234 subdural haemorrhage (SDH) computed tomography, 224-228 magnetic resonance imaging, 228-233 overview, 219-222 ultrasound imaging, 223-224

323

 (\bullet)

7/1/2016 7:23:01 PM

 (\bullet)

۲

324

۲

subgaleal haematomas, 209, 219f synthetic cannabinoid reception agonists (SCRAs), 39–40, 42–43

TASER® International devices effects of, 70-77 electrical outputs, 68-70 excited delirium syndrome and, 106 market domination, 67-68 modes of use, 68 in police custody, 184–185 teenagers, 93, 259 temazepam, 133-134, 158t tetra-hydrocannabinol (THC), 155, 158t, 165-166 tetra-nucleotides, 9 threat assessments, 289, 295-296, 297-311, 314 time of death analysis, 47-48, 53, 61-63 tobacco use, 202 traffic accidents. See driving impairment tramadol, 167 transport, 291-292, 312-313 traumatic brain injury, 218. See also abusive head trauma truth commissions, 270-272

ultrasound, 52, 53, 217, 223–224 unexploded bombs (UXB), 299 United Nations Field Security Handbook, 298 United Nations' High Commissioner for Human Rights, 270 United Nations Integrated Security Clearance and Tracking System (ISECT), 298 Uruguay, 271, 272 Use of Force (UofF) modalities, 184–185 UV radiation, 14–16

Valium[®]. *See* diazepam vascular impressions, 214 victim identification, 279–281 visas, 294, 297, 313 visceral lesions, 255–256

war crimes. *See* crimes against humanity Wormian bones, 215

۲

Yugoslavia, 270

۲

Z drugs, 156, 167 zero tolerance, 155, 157, 166, 171 ziprasidone (Geodon®), 107t, 109