# Index

Page numbers in *italics* denote figures, those in **bold** denote tables.

<table>
<thead>
<tr>
<th>ABCDE system</th>
<th>arrhythmias 82</th>
</tr>
</thead>
<tbody>
<tr>
<td>burns/scalds 156</td>
<td></td>
</tr>
<tr>
<td>convulsions 100</td>
<td></td>
</tr>
<tr>
<td>neonatal resuscitation 317–332</td>
<td></td>
</tr>
<tr>
<td>reduced conscious level 91</td>
<td></td>
</tr>
<tr>
<td>respiratory failure 51</td>
<td></td>
</tr>
<tr>
<td>serious illness 35–42</td>
<td></td>
</tr>
<tr>
<td>serious injury 116–117</td>
<td></td>
</tr>
<tr>
<td>shock 69</td>
<td></td>
</tr>
<tr>
<td>see also resuscitation</td>
<td></td>
</tr>
<tr>
<td>abdominal distension 50</td>
<td></td>
</tr>
<tr>
<td>abdominal imaging 254</td>
<td></td>
</tr>
<tr>
<td>abdominal injury 135–137</td>
<td></td>
</tr>
<tr>
<td>assessment 135–136</td>
<td></td>
</tr>
<tr>
<td>crush 148</td>
<td></td>
</tr>
<tr>
<td>definitive care 136–137</td>
<td></td>
</tr>
<tr>
<td>examination 136</td>
<td></td>
</tr>
<tr>
<td>gastric drainage 136</td>
<td></td>
</tr>
<tr>
<td>history 135</td>
<td></td>
</tr>
<tr>
<td>investigations 136</td>
<td></td>
</tr>
<tr>
<td>surgical intervention 137</td>
<td></td>
</tr>
<tr>
<td>urinary catheterisation 136</td>
<td></td>
</tr>
<tr>
<td>abdominal thrust (Heimlich manoeuvre) 181–183, 182, 183</td>
<td></td>
</tr>
<tr>
<td>ACCEPT method 260–263</td>
<td></td>
</tr>
<tr>
<td>accessory respiratory muscles, use of 37</td>
<td></td>
</tr>
<tr>
<td>accidental poisoning 303</td>
<td></td>
</tr>
<tr>
<td>acetylcysteine 334</td>
<td></td>
</tr>
<tr>
<td>aciclovir 97, 334</td>
<td></td>
</tr>
<tr>
<td>acid–base balance 269–279</td>
<td></td>
</tr>
<tr>
<td>carbonic acid reaction 271–272</td>
<td></td>
</tr>
<tr>
<td>hydrogen ion concentration, acidity and pH 269, 270, 270, 271</td>
<td></td>
</tr>
<tr>
<td>standard bicarbonate 272</td>
<td></td>
</tr>
<tr>
<td>Stewart's strong ion theory 272–275, 273, 274</td>
<td></td>
</tr>
<tr>
<td>acidaemia 269</td>
<td></td>
</tr>
<tr>
<td>organic 275</td>
<td></td>
</tr>
<tr>
<td>acidity 270–271</td>
<td></td>
</tr>
<tr>
<td>acidosis 269</td>
<td></td>
</tr>
<tr>
<td>arterial blood gases <strong>277–279</strong></td>
<td></td>
</tr>
<tr>
<td>hyperchloraemic 273–274</td>
<td></td>
</tr>
<tr>
<td>hyperkalaemic <strong>286</strong></td>
<td></td>
</tr>
<tr>
<td>metabolic 269, 277–279, <strong>277–279, 306</strong></td>
<td></td>
</tr>
<tr>
<td>respiratory 269, 275, 275</td>
<td></td>
</tr>
<tr>
<td>activated charcoal 307, <strong>335</strong></td>
<td></td>
</tr>
<tr>
<td>acute respiratory distress syndrome (ARDS) 163</td>
<td></td>
</tr>
<tr>
<td>adenosine 86, <strong>335</strong></td>
<td></td>
</tr>
<tr>
<td>adenotonsillar hypertrophy 8</td>
<td></td>
</tr>
<tr>
<td>adenosine 55</td>
<td></td>
</tr>
<tr>
<td>adrenaline (epinephrine) 264, <strong>335–336</strong></td>
<td></td>
</tr>
<tr>
<td>anaphylaxis 75, 76, 75</td>
<td></td>
</tr>
<tr>
<td>infusion 258</td>
<td></td>
</tr>
<tr>
<td>neonatal resuscitation 327</td>
<td></td>
</tr>
<tr>
<td>non-shockable rhythms 202</td>
<td></td>
</tr>
<tr>
<td>shockable rhythms 205</td>
<td></td>
</tr>
<tr>
<td>tracheal intubation 217</td>
<td></td>
</tr>
<tr>
<td>advanced paediatric life support (APLS) 3, 5</td>
<td></td>
</tr>
<tr>
<td>afterload 67, 78</td>
<td></td>
</tr>
<tr>
<td>age and injury risk 110</td>
<td></td>
</tr>
<tr>
<td>air swallowing 136</td>
<td></td>
</tr>
<tr>
<td>air transport 260</td>
<td></td>
</tr>
<tr>
<td>AirTraq® device 195</td>
<td></td>
</tr>
<tr>
<td>airway 7–8, 8, 185–198, 256</td>
<td></td>
</tr>
<tr>
<td>arrhythmias 82</td>
<td></td>
</tr>
<tr>
<td>basic life support 171–173, 171–173</td>
<td></td>
</tr>
<tr>
<td>burns/scalds 156</td>
<td></td>
</tr>
<tr>
<td>cervical spinal trauma 117</td>
<td></td>
</tr>
<tr>
<td>convulsions 100</td>
<td></td>
</tr>
<tr>
<td>decreased conscious level 91</td>
<td></td>
</tr>
<tr>
<td>emergency treatment 186</td>
<td></td>
</tr>
<tr>
<td>envenomation 311</td>
<td></td>
</tr>
<tr>
<td>equipment 189–195, <strong>191</strong>, 192</td>
<td></td>
</tr>
<tr>
<td>neonates 322–325, 324, 325</td>
<td></td>
</tr>
<tr>
<td>poisoning 304</td>
<td></td>
</tr>
<tr>
<td>primary survey and resuscitation 185–186</td>
<td></td>
</tr>
<tr>
<td>respiratory failure 51</td>
<td></td>
</tr>
<tr>
<td>secondary survey 186</td>
<td></td>
</tr>
<tr>
<td>serious illness 35–38, <strong>36</strong>, 43</td>
<td></td>
</tr>
<tr>
<td>serious injury 117</td>
<td></td>
</tr>
<tr>
<td>shock 69</td>
<td></td>
</tr>
<tr>
<td>surgical 198</td>
<td></td>
</tr>
<tr>
<td>team management 186–187</td>
<td></td>
</tr>
<tr>
<td>tracheostomy blockage 196–198, 197</td>
<td></td>
</tr>
<tr>
<td>transfer equipment 263</td>
<td></td>
</tr>
<tr>
<td>see also tracheal (endotracheal) intubation</td>
<td></td>
</tr>
<tr>
<td>airway obstruction 50, 53, 54, 56, 128, 180–183, <strong>180–183</strong>, 182, 183</td>
<td></td>
</tr>
<tr>
<td>emergency treatment 181–183, 182, 183</td>
<td></td>
</tr>
<tr>
<td>unconscious patients 183</td>
<td></td>
</tr>
<tr>
<td>see also stridor; wheeze</td>
<td></td>
</tr>
<tr>
<td>ALARA 249</td>
<td></td>
</tr>
<tr>
<td>albumin 273, 274, <strong>277–279</strong></td>
<td></td>
</tr>
<tr>
<td>alcohol abuse 145, 165, <strong>165</strong></td>
<td></td>
</tr>
<tr>
<td>see also ethanol poisoning</td>
<td></td>
</tr>
<tr>
<td>Alder Hey Triage Pain Score 17, 22</td>
<td></td>
</tr>
<tr>
<td>alkalaemia 269</td>
<td></td>
</tr>
<tr>
<td>alkalisers agents 203</td>
<td></td>
</tr>
<tr>
<td>see also sodium bicarbonate</td>
<td></td>
</tr>
<tr>
<td>alkalosis 271, 272</td>
<td></td>
</tr>
<tr>
<td>hypokalaemic <strong>286</strong></td>
<td></td>
</tr>
<tr>
<td>metabolic 273, 277, 279</td>
<td></td>
</tr>
<tr>
<td>respiratory 276, 276, 289, 308</td>
<td></td>
</tr>
<tr>
<td>alprostadil 47, <strong>336</strong></td>
<td></td>
</tr>
<tr>
<td>Ametop gel 19</td>
<td></td>
</tr>
<tr>
<td>aminophylline 60, <strong>336</strong></td>
<td></td>
</tr>
<tr>
<td>amiodarone 264, <strong>336</strong></td>
<td></td>
</tr>
<tr>
<td>poisoning 86</td>
<td></td>
</tr>
<tr>
<td>shockable rhythms 205, 206</td>
<td></td>
</tr>
<tr>
<td>ventricular tachycardia 86, 87</td>
<td></td>
</tr>
<tr>
<td>amphetamine poisoning 304, <strong>306</strong></td>
<td></td>
</tr>
<tr>
<td>ampicillin 264</td>
<td></td>
</tr>
<tr>
<td>AMPLE acronym 122</td>
<td></td>
</tr>
<tr>
<td>amputation, traumatic 148</td>
<td></td>
</tr>
</tbody>
</table>
anaemia 73, 78, 140, 256
haemolytic 70
malaria 97
neonates 331
shock 69
anaesthesia
dissociative 21
endotracheal intubation 187
epiglottitis 53
foreign body aspiration 56
local 19
rapid sequence induction 103, 214
anaesthetic agents 217
anaesthetic breathing systems 189
analgesics
inhalational 20
non-opioid 19–20
opiate see opiates
see also pain management
anaphylactic shock 56–57, 69, 74–76, 75
anaphylaxis 56–57, 74–76, 75
breathing difficulties 48
emergency treatment 75–76, 75
signs and symptoms 74
stridor 46, 56–57
anatomy 7–9
airway 7–8
body surface area 9, 9
breathing 8
circulation 8–9
anion gap 274–275, 274
raised 275
ant stings 315
antiarrhythmic drugs
shockable rhythms 206
ventricular tachycardia 86, 87
antibiotics 264, 337, 338
cerebral malaria 98
hypovolaemic shock 72
meningitis 97
open fractures 150
pneumonia 63, 64
prophylactic 149, 179
septic shock 72
sickle cell crisis 78
upper airways obstruction 57
antidotes
envenomation 313
poisoning 307, 308
antihistamines
anaphylaxis 76
poisoning 304
antihypertensive drugs 106, 106, 349
antivenom 313
anxiety attack 50
aortic coarctation 65, 69, 76, 105
aortic rupture 131
aortic stenosis 65, 69
apnoea 42, 50, 61, 180
bronchiolitis 62
central herniation 91
drowning 163
neonates 318–320, 319
primary 318, 319
prostaglandins causing 77
systemic hypertensive crisis 105
terminal 319, 319, 320
arch angiography 131
arrhythmias 81–87
bradycardia 38, 81, 82, 83–84, 83
non-shockable rhythms 199–203, 200–202
presentation 81
primary survey 82–83
resuscitation 82–83
shockable rhythms 203–207, 203, 204
tachycardia see tachycardia
arterial blood gases 277–279
chest injury 132
see also acid–base balance
artificial ventilation 277–279
asthma 50, 57–61
background information 60–61
emergency treatment 58–60, 60
symptoms 58
asystole 199, 200
management 201, 202
reversible causes 202
atlantoaxial rotary subluxation 152
ATMISTER acronym 115
atrioventricular septal defect 65
atropine 203, 264, 337
auscultation 30, 37, 42, 45, 46, 61, 66, 187, 195, 214, 216, 322
automatic external defibrillators 179, 205, 206
AVPU classification 40, 121, 141
back slaps 181, 182
bacterial meningitis 96–97
bacterial tracheitis 50, 55
bag-and-mask ventilation 188, 212–213, 212, 213
neonates 325
two-person 213
barbiturates 104, 105, 217, 347
basal skull fracture 136, 142, 143, 145, 214
basic life support 169–184, 170, 177, 184
blood gases 132, 277–279
blood loss 9, 16
catastrophic 116–117
clinical signs 119
crush injuries 148
extremity trauma 147
hypovolaemic shock 69, 71–72, 282–283
intra-abdominal injury 136
scap lacerations 186
traumatic amputation 148
blood pressure 39
measurement 105
normal range 7, 36
blood tests
abdominal injury 136
traumatic brain injury 143
blood transfusion 79
haemolytic anaemia 70
infected 97
blood volume 9
blue ringed octopus bite 312, 315
body surface area 9, 9, 157
body temperature 16, 42
neonates 321–322
see also hyperthermia; hypothermia
box jellyfish stings 312, 313, 315
brachial artery palpation 174
brachial vein 229
venous cut-down 229–230, 229
bradycardia 38, 81, 82, 83–84, 83
poisoning 306
suction causing 82
bradypnoea 306
brain herniations 91, 91, 145
brain injury, traumatic see traumatic brain injury
breastfeeding 10, 61
Index
face masks
- artificial ventilation 188–189, 188
- spontaneous breathing 188, 188
faces scale and pain ladder 18
Fallot’s tetralogy 76
falls 109
FAST (focused abdominal with sonography for trauma) 121
fear 11
femoral artery palpation 175
femoral nerve block 242–244
ultrasound guidance 243–244, 243, 244
femoral vein access 230–232, 231
femur fractures 21, 147, 243
fentanyl 20, 144
fetal asphyxia 318
fetal haemoglobin 10, 50
fever 42, 279
- bacterial tracheitis 55
- bronchiolitis 61–62
capillary refill 38
and convulsions 99
croup 55
near-drowning 165
pneumonia 52
septicaemia 71, 72
tachycardia 37
treatment 63–65, 64
- see also hyperthermia
fibroptic intubating bronchoscopes 195
fibroptic laryngoscope 192
fish stings 312, 315
flail chest 129–130
flecainide 86, 340
fluclaxacillin 340
fluid balance 281–284
dehydration and shock 282–284, 282,
284
overhydration 284
serious injury 125
fluid loss, non-haemorrhagic 71–72
fluid overload 284
fluid requirements 281, 282
fluid therapy 281
- burns/scalds 148
crystalloids vs colloids 79, 284
dehydration 282, 283–284
aqueous humour 120
neonates 327
shock 79–80, 284, 284
traumatic amputation 148
flumazenil 341
followers 27–28
foreign bodies
- aspiration 46, 49, 50, 52, 52, 53, 54, 56, 173, 174, 180, 183
- ingestion 316
formulary 333–349
fractures
- antibiotic prophylaxis 125
- compartment syndrome 149–150
femur 21, 147, 243
open 148–149, 150
pelvis 147, 250
rib 8, 50, 127, 130, 252–253
skull 139, 190
spine 131
- see also extremity trauma
fresh frozen plasma 120, 125, 258, 314
frusemide (furosemide) 264, 341
funnel web spider 312, 313, 315
gag reflex 256
gasping 37
gastric drainage 136
gastric lavage 307
gastric pH 271
gastric tubes 189
gastroenteritis 69, 71, 72, 84, 283, 284, 285
gender and injury 110
gentamicin 264
Glasgow Coma Score 40, 90, 141, 142
GlideScope(R) system 195
glucagon
- glucose 277–279
- hyperkalaemia 288
neonatal resuscitation 327
great vessels, rupture of 131
grimace response 143
grunting 37
Guedel airway 190, 190, 213, 213
guidelines 31
- traumatic brain injury 141
haematocrit 79, 121, 124
haemoglobin 67, 70, 119, 124
anaemia 78, 98
fetal 10, 50
head injuries in infants 140
shock 71
haemolyis, acute 71
haemoperfusion 307
Haemophilus influenzae 96
haemopneumothorax 119, 129
haemorrhage 16
- catastrophic external 116–117
- see also blood loss
haemostasis 124, 222
envenomation 314
haemothorax 131, 189, 252
massive 129
halothane 217
HALT acronym 30
hands-free defibrillation 237
Hartmann’s solution 284
head block 117, 118
head injury
- imaging 254
- infants 140
- skull fractures 139, 190
- see also traumatic brain injury
head tilt manoeuvre 172
heart disease, congenital 76–77
heart failure 65–66
- vs bronchiolitis 63
heart rate 38
blood loss 119
fast see tachycardia
hypoxia 37, 82
neonates 322–323
normal range 7, 36
and respiratory inadequacy 37
slow see bradycardia
Heimlich manoeuvre 182–183, 182, 183
Henderson–Hasselbalch equation 272, 275, 276
herpes simplex encephalitis 97
host defences reassessment, serious
injury 125
human factors 23–31
communication 26–27, 26–27
errors see medical errors
improving performance 30–31
organisational hierarchy 28
situation awareness 28–30, 29
team working 27–28
Human Factors Clinical Working Group 23
human immunodeficiency virus (HIV),
transmission during basic life support 179
hydrocephalus 90
hydrocortisone 341
hydrogen ion concentration 270–271, 270,
277–279
hypercortisonism 286
hyperammonaemia 97
hypercalcaemia 289
hypercholaemic acidosis 273–274
hyperflexion injuries 153
hyperglycaemia 96, 140, 207, 259, 289,
308, 327
hyperkalaemia 202, 286–288, 286, 287
hyperkalaemic acidosis 286
hypematraemia 285
hypertension
- emergency treatment 105–106, 106
poisoning 306
hypertensive encephalopathy 95
hyperthermia 99, 124, 259
malignant 217
poisoning 306
post-arrest 207
hyperventilation 50
hypoalcaemia 202, 288–289
hypoglycaemia 44, 140, 144, 257, 259,
288, 290
alcohol abuse 122
convulsions 100, 101, 145
encephalopathy 97
neonates 327
raised intracranial pressure 93
reduced conscious level 90, 95, 96, 98
Index / 357

shock 71
shockable rhythms 207
hypokalaemia 202, 286
hypokalaemic alkalosis 286
hyponatraemia 285–286
hypoparathyroidism 288
hypoplastic left heart syndrome 65, 69, 76, 77
hypotension 39
poisoning 306
hypothermia
avoidance of 121
and blood clotting 125
and body surface area 9
drowning 163, 164, 165, 202
poisoning 93, 100, 304, 306
post-arrest 259
and pulse detection 37
therapeutic 207
hypotonia 38, 50
hypoxia 20, 202
arterial 49
asthma 58
and cardiac arrest 202
cerebral injury 140
croup 53
drowning 163
gasping respiration 37
and heart rate 37, 82
mental status 44
neonatal 318–320, 318–320
and pain 17
pulmonary contusion 131
and skin colour 38
smoke inhalation 156

i-gel airway 190–191, 191, 219–220
ibuprofen 341
imaging
abdominal 254
ALARA 249
cervical spine 152, 251
chest radiography 62, 64, 252–254, 252, 253
head 254
trauma 249–254
whole body CT 249–251
immobilisation, spinal 150–151
cervical spine 244–247, 246, 246, 247
head block 117, 118
manual in-line stabilisation 245
immune function 10, 125
IMSAFE acronym 30
inborn errors of metabolism 97
individual performance 26
improving 30–31
infants
airway 171
bag-and-mask ventilation 212

basic life support 177
chest compressions 175, 176
choking 181, 181
foreign body aspiration 56
head injury 140
jaw thrust 324
larynx 192
meningitis 101
see also neonates
infection
and basic life support 179
and body temperature 42
burns 158
host defence 125
respiratory 49–66
sepsis 72
infectious mononucleosis 57
influenza 55
inhalation injury 156
inhalational analgesia 20
Injury Minimisation Programme for Schools (IMPS) 111
injury prevention 109, 110–112
abdominal injury 109
advocacy for legislation and design 111
child safety organisations 111
data collection/analysis 110
education 110–111
inotrope infusion 257–258
insensible fluid losses 281
inspiratory noises 36
insulin 342
hyperkalaemia 288
internal jugular vein access 232–233
intracranial haemorrhage 89, 144, 254
intracranial pressure, raised 50, 140
bradycardia 82, 100
breathing patterns 42
drowning 165
fluid therapy 70
grunting respiration 37
hypertensive crisis 39, 105
pathophysiology 90–91, 91
signs of 93
see also coma
intravenous infusion 225–227, 226
compartments 227
powered devices 226–227
intraocular pressure 282
intubation see tracheal (endotracheal) intubation
intussusception 69
investigations
abdominal injury 136
child abuse 295–296
traumatic brain injury 143
after resuscitation 256
ipecacuanha 307
ipratropium 60, 342
iron poisoning 306, 307–308
Irukandji syndrome 315
jaw thrust 173
neonates 324
jellyfish stings 312, 313, 315
jugular veins, access techniques external 233–234
internal 232–233
ketamine 21
tracheal intubation 217
ketosis 275
diabetic 50, 97, 269
kidneys, stabilisation 258
labetalol 106, 342
lactate 269, 273, 274, 277–279
lactic acidosis 275
laryngeal foreign body 50, 53, 54, 56
laryngeal mask airway 190, 191, 219–220, 220
complications 220
insertion 219, 220
neonates 329
laryngoscopy 191–193, 192, 214, 216
larynx 8
lay rescuers 179
leaders 27
levetiracetam 103
lidocaine (lidocaine) 19, 264, 342
shockable rhythms 206
life threat 16
lightning strike 161
liver function, stabilisation 258
local anaesthetics 19, 337
femoral nerve block 242–244
Lomotil poisoning 304
long QT syndrome 165
long saphenous vein 229
loratidine 343
lorazepam 103, 343
lower limb injuries see extremity trauma
lumbar puncture 94
lumbar spinal trauma 153
lungs 8, 10
macrolide antibiotics
meningitis 97
pneumonia 63, 64, 65
Magill forceps 194
magnesium sulfate 60, 273, 343
shockable rhythms 206
magnetic resonance imaging (MRI)
cervical spine 152, 251
reduced conscious level 95
malaria (cerebral) 97–98
malignant hyperthermia 217
mannitol 264, 343
manual defibrillation 237
manual in-line stabilisation 245
mask oxygenation see bag-and-mask ventilation
mast cell tryptase 57
respiratory failure (cont’d)
  resuscitation 51
  secondary survey 52
  stridor 36, 51, 52–57
  susceptibility to 49–50
  wheeze 36, 51, 57–63
respiratory physiology 9–10
respiratory rate 35–36

blood loss 119
  normal range 7, 36
respiratory reserve 10, 127
respiratory syncytial virus 55
respiratory system
  and central neurological failure 42
  and circulatory failure 39
  secondary survey 45–46
resuscitation 4
  airway 185–186
  arrhythmias 82–83
  basic life support 169–184
  burns/scalds 156
  convulsions 100–101
  drowning 163–164
  electrical injury 162
  envenomation 311–312
  extremity trauma 147
  investigations after 256
  neonates 317–332
  poisoning 304–305
  reduced conscious level 91–94, 92
  respiratory failure 51
  serious illness 43–44
  serious injury 116–122
  shock 69–71
  traumatic brain injury 141
  when to stop 207, 328
retinal haemorrhage 96
retropharyngeal abscess 57
rhabdomyolysis 275, 288
rib fractures 8, 50, 127, 130, 252–253
  flail chest 129–130
ricketts 288
rifampicin 179
rocuronium, tracheal intubation 217

safety, stimulate, shout (SSS)
  SCOPE acronym 260
  secondary survey
    airway 186
    burns/scalds 157–158, 157
    convulsions 101
    drowning 164–165
    electrical injury 162
    extremity trauma 149–150
    reduced conscious level 94–96, 95
    respiratory failure 52
    serious illness 44–48
    serious injury 125–124
    traumatic brain injury 142–143, 142–143
  secondary triage 17
  sedation 21
  envenomation 314
  seizures see convulsions
  Seldinger technique 119
  self-inflating bags 189
  septic shock/septicaemia 39, 72–74
  serious illness 35–48
  airway and breathing 35–38, 36
  circulation 38–40, 39
  disability 40–42, 41
  emergency treatment 44–48
  exposure 42
  primary survey 43–44
  resuscitation 43–44
  secondary survey 44–48
  serious injury see trauma
  sevoflurane 217
  sexual abuse 292, 293–294
  examination 295
  shivering 42, 207, 259
  shock 50, 67–80
  anaemia 78
  anaphylactic 56–57, 69, 74–76, 75
  cardiogenic 69, 70, 76–78
  causes 68, 69
  compensated 68
  fluid therapy 79–80, 284, 284
  hypovolaemic 69, 71–72, 282–283, 282
  inotrope infusion 257–258
  irreversible 68
  non-haemorrhagic fluid loss 71–72
  pathophysiology 67–68
  primary survey 69–71
  resuscitation 69–71
  septic 39, 72–74
  sickle cell disease/crisis 78
  signs and symptoms 71
  toxic shock syndrome 72, 159
  uncompensated 68
  shockable rhythms 203–207, 203, 204
  antiarrhythmic drugs 206
  automatic external defibrillators 206
  capnography 206
  hypoglycaemia 207
  neonates 207
  oxygen therapy 207
  precordial thump 206
  reversible causes 206
  therapeutic hypothermia 207
  sickle cell disease/crisis 78
  silent chest 37
  simple pneumothorax 132
  simulated activities 26
  sinus tachycardia 84
  situation awareness 28–30, 29
  distraction 29–30
  error likelihood 30
  team working 30
  skin colour
    and circulatory failure 40
    and respiratory inadequacy 38
  skull fractures 139, 190
  slit thoracostomy 128
  smoke alarms 155
  smoke inhalation injury 156
  snake bites 312, 313, 314
  sniffing position 172
  social class, and injury 110
  sodium 273, 277–279, 285–286
  hypernatraemia 285
  hyponatraemia 285–286
  requirements 285
  sodium bicarbonate 203, 264, 349
  sodium chloride 0.45%, dextrose 5% 284
  sodium chloride 0.9% 284
  sodium chloride 3% 349
  sodium nitroprusside 106, 349
  sodium valproate 103
  solvent abuse 304
  spider bites 312, 313, 315
  spinal trauma 150–153, 151
    cervical spine 152
    fractures 131
    immobilisation 150–151
    head block 117, 118
    manual in-line stabilisation 245
    thoracic and lumbar spine 153
    without radiographic abnormality (SCIWORA) 153, 251
  stabilisation 4, 255–266
    airway and breathing 256
    assessment 259
    burns/scalds 159
    chest injury 132
    circulation 257
    drowning 165
    electrical injury 162
    head injury 145–146, 258–259
    inotrope infusion 257–258
    kidneys 258
    liver 258
    reduced conscious level 98
    trauma 124–126, 126
    see also transfer
  standard bicarbonate 272, 277–279
  Staphylococcus aureus 64
status epilepticus 40, 99, 101, 102, 104, 217, 339
see also convulsions
Stephen's banded snakes 314
steroids
anaphylaxis 76
asthma 60
bronchiolitis 61
croup 53, 55, 57
epiglottitis 54
meningitis 97
Stewart's strong ion theory 272–275, 273, 274
stingray sting 315
stings 310–315, 315
stonelfish stings 313
Streptococcus pneumoniae 64, 96
stridor 36, 51, 52–57
strawberry tongue 72
streptococcus pneumoniae 64, 96
stroke volume 10
strong ion difference 272–273, 274
strong ion theory 272–275, 273, 274
structured approach
paediatric emergencies 13–22, 14
serious illness 35–48
subclavian vein access 234
subdural haematoma 91
suction
airway management 45, 53, 117
bradycardia induced by 82
bronchiolitis 61
distress 131
foreign body removal 187
gastric 190
tracheostomy 196
suction devices 189, 194
supraventricular tachycardia 84–86, 84, 85
surfactant 330
surgery, abdominal injury 137
surgical airway 198, 220–221, 221
surgical cricothyroidotomy 222
suxamethonium, tracheal intubation 217
Swiss cheese model of human error 25, 25
systemic hypertensive crisis 105
systolic blood pressure
blood loss 119
target values 144
tachycardia 81, 82
poisoning 306
supraventricular 84–86, 84, 85
ventricular 86–87, 87
tachypnoea 69
poisoning 306
team performance 26
improving 30–31
team working 14, 27–28
airway management 186–187
cervical spinal immobilisation 247
followers 27–28
hierarchy 28
leaders 27
roles 27
situation awareness 30
trauma teams 113
temperature see body temperature
tension pneumothorax 128–129, 128, 129, 202, 253
terbutaline 60, 349
terminal apnoea 319, 319, 320
tertiary survey in serious injury 125
tetanus prophylaxis 125, 148, 149, 150, 158, 313
tetralogy of Fallot 76
theophylline poisoning 207
thermal injury see burns/scalds
thiopentone sodium 104
hypotension induced by 217
tracheal intubation 217
thoracic spinal trauma 153, 253
thoracotomy, clamshell 241
tibia, intraosseous infusion 119, 226
tiger snake 314
tonsillitis, acute 57
traumatic amputation 148
traumatic brain injury 139–146
analgesia 144
conscious level 144
convulsions 145
emergency treatment 143–145
epidemiology 139
examination 142
Glasgow Coma Score 141, 142
grimace response 143
history 142
investigations 143
neurosurgical referral 145
pathophysiology 139
primary damage 139
primary survey 141
raised intracranial pressure 140
resuscitation 141
review 145–146
secondary damage 140, 258–259
secondary survey 142–143, 142–143
stabilisation and transfer 145–146, 258–259
triage 140–141
uncal/central herniation 145
triage 15–17
  Alder Hey Triage Pain Score 17, 22
decision making 15–16
secondary 17
traumatic brain injury 140–141
UK triage scale 15
tricuspid atresia 65, 76
decision making 15–16
tricyclic antidepressant poisoning 86,
  306, 308
truncus arteriosus 65
UK triage scale 15
ultrasound
  FAST 121
  femoral nerve block 243–244, 243, 244
umbilical vein access 228, 229
uncal herniation 91, 91, 145
uncal syndrome 91
United Nations Convention on the Rights
  of the Child (1989) 291
upper airways obstruction see stridor
upper limb injuries see extremity trauma
upper respiratory tract infections
  (URTIs) 61
urea 277–279
urinary catheterisation 124–125
  abdominal injury 136
  urinary output, and circulatory failure 40
urinary pH 271
urticarial rash 52
vagal stimulation 82
vaginal examination 136
vascular access 225–235, 228–231, 229
  arterial cannulation 234–235
  central venous access 230–234, 230, 231
  intravenous infusion 225–227, 226
  peripheral venous 227–230
vascular injury 149
venepuncture, emergency 21
venous cannulation 21
venous cut-down 229–230, 229
ventilation 185–198
  bag-and-mask 188, 212–213, 212,
  213, 325
  equipment 188–189, 188
  i-gel airway 190–191, 191, 219–220
  indications 119
  laryngeal mask airway 190, 191,
  219–220, 220, 329
  mechanical ventilators 189
  mouth-to-mask 211, 212
  nasopharyngeal airway 190, 214
  needle cricothyroidotomy 221, 222
oropharyngeal airway 190, 190,
  213, 213
surgical airway 198, 220–221, 221
  without intubation 211–213, 212, 213
see also airway; tracheal (endotracheal)
  intubation
ventilation–perfusion mismatch 50
ventricular fibrillation 203, 204
ventricular septal defect 65
ventricular tachycardia 86–87, 87
  protocol 204
pulseless 204
verapamil 86, 349
voltage, electrical 162
volvulus 69, 71
wasp stings 315
water requirements 285
weight 5–7
  centile chart 6
wheezing 36, 51, 57–63
asthma 57–61, 58, 60
whole body CT 249–251
  X-rays see radiography
Yankauer sucker 194