

Index

Page numbers in *italics* refer to illustrations; those in **bold** refer to tables

- ABCDE system **82**, 136–137
- acute coronary syndrome (ACS) 157, 159–161
 - treatment 160–161
- Acute Illness Management (AIM) 133
- acute kidney injury (AKI) 157, 159
 - aetiology **158**
- Acute Life-Threatening Event Recognition and Treatment (ALERT) 133
- acute tubular necrosis (ATN) 159
- adrenaline (epinephrine) 60, 92
 - anaphylaxis management 156
- Advanced Life Support (ALS) 133
 - algorithm *164*
- Advanced Paediatric Life Support (APLS) 133
- adverse drug reactions
 - anaphylaxis 155–156
 - malignant hyperpyrexia (hyperthermia) 49–50
 - suxamethonium *51*
- airway
 - assessment 13, *14*
 - in perioperative emergencies 137–138, **137**, **138**
 - equipment 25–30
 - difficult airway trolley 30, *30*
 - facemasks 26, *26*
 - introducers 30
 - laryngoscopes 28–30, *29*, *30*
 - nasopharyngeal airway 26, *26*
 - oropharyngeal airway 26, *26*
 - postanaesthesia care unit 111
 - supraglottic airway (SGA) devices 26–27, *27*
 - tracheal tubes 27, *28*
 - lower airway problems 145–152
 - asthma 145–148
 - pneumonia 148–149
 - pneumothorax 149
 - pulmonary embolism 151–152, *152*
 - pulmonary oedema 150–151, *151*
 - tension pneumothorax 149–150
 - maintenance 70–76
 - cricothyroidotomy 78
 - difficult and failed intubation 76–78, *77*
 - facemasks 70, *70*
 - nasopharyngeal airway 70–71, *72*
 - oropharyngeal airway 70, *71*
 - problems with 71
 - supraglottic airway devices 71–72, *73*
 - see also* tracheal intubation
 - obstruction 112, 137–138, 143–145
 - assessment 143
 - blocked tracheostomy/laryngectomy 145, *146*, *147*
 - causes **137**
 - external compression after surgery 144–145
 - localization 137, **137**
 - reduced conscious level and 144
 - swelling/tumour 144
 - tongue *70*
- alcohol consumption 12
- alfentanil **55**
- allergies 11–12
 - causes of allergic reactions 156
 - see also* anaphylaxis
- alpha-2 adrenoreceptor antagonists 57
- alveolar hypoventilation 112–113, *112*
- amethocaine 59, 108
- anaerobic threshold (AT) 15–16, **16**
- anaesthesia 90
 - see also* general anaesthesia; local anaesthesia; regional anaesthesia
- anaesthetic assessment 9–12
 - allergies 11–12
 - drug history 11–12
 - exercise tolerance 10–11
 - family history 11
 - investigations 14–15
 - medical history 9–10
 - previous anaesthetics and operations 11
 - social history 12
- anaesthetic assistant 4
- anaesthetic drugs
 - dose calculation 60–61
 - inhalational drugs 48–49, **48**
 - minimal alveolar concentration (MAC) 49, **49**
 - solubility 48–49
 - intravenous drugs 46, **47**
 - total intravenous anaesthesia (TIVA) 50–51
 - local anaesthetics 58–60, **61**
 - see also specific drugs*

- anaesthetic gases
 - cylinder colours **31**
 - delivery to operating theatre 31–32
 - history 1
 - theatre pollution minimization 36
 - see also specific gases*
- anaesthetic machine 32–36, **35**, **36**
 - control of gas flow 32, **32**
 - oxygen supply monitoring 44
 - preoperative checks 65
 - pressure reduction 32
 - vapour addition 32–33, **33**
 - see also breathing systems*
- anaesthetic record 86
- anaesthetic vapours 32–33, **33**
 - concentration analysis 39
- analgesia 90
 - infiltration 92
 - multimodal 124–125
 - postoperative 123–130
 - patient-controlled (PCA) 125–127
 - regional techniques 127–128, **128**
 - see also local anaesthesia; pain; regional anaesthesia*
- analgesic drugs 52–58, 124
 - alpha-2 adrenoreceptor antagonists 57
 - gabapentinoids 57–58
 - non-steroidal anti-inflammatory drugs (NSAIDs) 56–57
 - contraindications 57
 - opioids 52–55, **53**
 - regulation of 55–56
 - pre-emptive use 46
 - sites of actions **125**
 - see also specific drugs*
- anaphylaxis 155–156
 - management 156
- angina, unstable 159–160
- antibiotics
 - pneumonia treatment 149
 - prophylactic use 46
 - sepsis treatment 155
- anticholinesterases 52
- anticoagulants
 - prophylactic use 46
 - pulmonary embolism management 152
- antiemetics 58, **58**, 118
 - premedication 46
- antiepileptic therapy 170
- antihistamines 156
- anuria 129, 157
- aortocaval compression 102
- Apfel score 12, 58
- arrhythmias 16, 117, 161–162
 - bradycardia 117, 162
 - cardioversion 162
 - hypotension and 117
 - tachycardia 117, 161–162
 - tracheal intubation complications 76
 - transcutaneous pacing 162
- arterial blood gas analysis 139
 - hypovolaemic shock 153–154
 - pneumonia 148
 - pulmonary embolism 152
- arterial cannulation 68–69
- ASA physical status scale 19, **19**
- aspiration of gastric contents 76, 78–79
 - at induction 79
 - management 79
 - predisposing factors 99–100
 - risk reduction 100–101
- aspiration pneumonia 148
- asthma, acute severe 145–148
 - management guidelines 148
- atracurium 3, **53**, **105**
- atrial fibrillation 162
- bispectral index (BIS) 43, **43**
- blood components 63
- blood loss 43–44, 85–86, 116
 - acute haemorrhage management 154
 - see also shock*
- blood pressure
 - invasive monitoring 40
 - direct arterial measurement 154, **154**
 - non-invasive monitoring 38
 - see also hypertension; hypotension*
- blood sugar investigation 14
- blood transfusion risks 63
- body mass index (BMI) 17, **17**
- brachial plexus block 92
- bradycardia 117, 162
 - central neural blockade complications 96, **96**
- breathing
 - assessment in perioperative emergencies 138–140
 - signs of abnormal breathing 138–139
 - signs of respiratory disease 139
 - causes of problems **138**
- breathing systems 33–35
 - circle system 33–35, **34**
 - components 33
 - monitoring 44
- breathlessness *see* shortage of breath, acute
- bronchodilators 156
- bupivacaine 3, 60, **61**, 92, **105**
- buprenorphine 54–55
- BURP manoeuvre 76
- caesarean section 101–102
- Calder test 13
- cannulas 36–37, **37**, 66
 - see also intravenous access*
- capillary refill time (CRT) 140, 153
- capnometry 39, **40**
- cardiac arrest 162–166
 - confirmation of 163, **165**
 - intraoperative 166
 - management 163–166, **164**

- cardiac arrhythmias *see* arrhythmias
- cardiac output
 - monitoring 41–43
 - oesophageal Doppler 41, 41, 42
 - pulse analysis 41–43, 42
 - reduced 116–117
 - arrhythmias 117
 - left ventricular dysfunction 117
 - regional anaesthesia contraindication 95
- cardiogenic shock 157
- cardiopulmonary exercise (CPX) testing 15–16, 15
- cardiopulmonary resuscitation (CPR)
 - 163–166, 165, 166
 - decisions about 166–167
 - intraoperative cardiac arrest 166
- cardiovascular disease 16
 - heart failure 9, 157
 - cardiac function classification 10
 - hypertension 10, 76, 118
 - medical referral 16
 - myocardial infarction (MI) 9, 160–161
 - stroke 168–169, 169
- cardiovascular system
 - examination 13
 - investigations 15–16
 - medical history 9–10, 10
 - obese patients 17
 - warning signs 18, 18
 - see also* cardiovascular disease
- cardioversion 162
- Care of the Critically Ill Surgical Patient (CCrISP) 133
- caudal block 108
- cell savers 37, 63
- central neural blockade *see* epidural
 - anaesthesia/analgesia; spinal anaesthesia
- central respiratory depression 113
- central venous cannulation 66–68
 - femoral vein 68
 - internal jugular vein 67, 67
 - complications 68
 - subclavian vein 67–68
 - technique 68
- central venous pressure (CVP)
 - influencing factors 41
 - monitoring 40–41
- cerebral haemorrhage/ischaemia 113
- cervical spine X-ray 15
- chest compressions 163–166, 164, 165
- chest pain 159–161
 - myocardial infarction 160, 160
 - treatment 160–161
 - unstable angina 159–160
- chest X-ray 15
 - cardiogenic shock 157
 - pneumonia 148
 - pneumothorax 149
 - pulmonary embolism 152
 - pulmonary oedema 151, 151
- children 106–108
 - anaesthetic techniques 108
 - anatomical considerations 107
 - complications 108
 - consent issues 106
 - paediatric formulae 107
 - parental responsibility 106
 - physiological considerations 107
- chloroform 1
- chronic obstructive pulmonary disease (COPD) 134, 139
- chronic pain management 5
 - see also* analgesia
- chronic renal failure 11, 16
- circle system 33–35, 34
- circulation assessment 140–141
- circulatory collapse 97
- cisatracurium 53
- clonidine 57
- coagulation screen 15
- coagulopathy 95
- cocaine 3, 59
- colloids 61–62
 - composition 62
 - see also* fluids
- coma 141
 - see also* consciousness level
- communication skills 88
- community-acquired pneumonia (CAP) 148
- complications
 - central neural blockade 95–96, 96
 - children 108
 - intravenous access 67, 68
 - postoperative 111–118
 - hypertension 118
 - hypotension 116–118
 - hypoxaemia 111–116
 - see also* postoperative nausea and vomiting (PONV)
 - tracheal intubation 76
- consciousness level
 - assessment 141
 - Glasgow Coma Scale (GCS) 141, 142
 - decreased 144, 167–170
 - airway obstruction and 144
 - causes of 141
 - hypoglycaemia 167–168
 - opioid narcosis 168
 - status epilepticus 169–170
 - stroke/intracranial haemorrhage 168–169, 169
- continuous positive airway pressure (CPAP) 151
- COX inhibitors 56–57
- cricoid pressure 100, 100
- cricothyrotomy 78
- critical care 4–5
 - see also* perioperative medical emergencies
- cryoprecipitate 63
- crystalloids 61
 - composition 62
 - see also* fluids
- CT pulmonary angiogram 152, 152

- curare 2
 cyclizine **58, 119**
- D-dimer assay 152
 dantrolene 50
 death, confirmation of 166
 decision making 88
 decreased conscious level *see* consciousness level
 defibrillation 162–165
 dehydration 158
 desflurane 1, **48**
 dexamethasone **58**
 dexmedetomidine 57
 diabetes 11
 hypoglycaemia 167–168
 investigations 14, 15
 medical referral 16
 obese patients 18
 diaphragmatic splinting 133
 difficult airway trolley 30, **30**
 diffusion hypoxia 114
 discharge of patient 111, **111**
 diuretics, pulmonary oedema management 150–151
 Do Not Attempt CPR (DNACPR) 167
 drug history 11–12
 recreational drug use 12
 drugs *see* anaesthetic drugs; analgesic drugs; *specific drugs*
 dyspnoea *see* shortage of breath, acute
- Early Warning Scoring systems (EWS) 134, **134**
 echocardiography 16
 cardiogenic shock 157
 pulmonary embolism 152
 transthoracic (TTE) 154
 electrocardiogram (ECG) 15, 38
 cardiogenic shock 157
 chest pain 160
 pulmonary embolism 152
 pulmonary oedema 151
 emergencies *see* perioperative medical emergencies
 emergency surgery 99–100
 EMLA 46, 60, 108
 endocrine disorders 16
 see also diabetes
 endotracheal tubes *see* tracheal tubes
 enhanced recovery programme 130–131
 Entonox 49, 130
 cylinder colour **31**
 epidural anaesthesia/analgesia 3, 93–94, **93**
 complications 95–96, 128–130
 inadequate analgesia 129
 management 128–130
 postdural puncture headache 96, 129
 contraindications 95
 monitoring 95
 postoperative 127–128
 epinephrine *see* adrenaline
 ether 1
 inhaler 2
 European Paediatric Life Support (EPLS) 133
 European Trauma Course (ETC) 133
 eutectic mixture of local anaesthetics (EMLA) 46, 60, 108
 examination 13, 142
 exercise tolerance assessment 10–11
 cardiopulmonary exercise (CPX) testing 15–16, **15**
- facemasks 26, **26, 70, 70**
 Hudson mask 115, **115, 116**
 failed intubation 76–78, **77**
 obstetric patients 101–102
 family history 11
 femoral vein access 68
 fentanyl **55, 105**
 fiberoptic bronchoscope 30, **30**
 intubation 76–77, **77**
 fibrinolytic therapy, acute coronary syndrome 161
 flowmeters 32, **32**
 fluid warmers 37
 fluids 61–63, 85–86
 accrued deficit 85
 blood and blood components 63
 colloids 61–62, **62**
 crystalloids 61, **62**
 dehydration 158
 intraoperative requirements 85–86
 pulmonary embolism management 152
 replacement 119–120
 routine maintenance 118
 third space losses 121
 see also intravenous fluid therapy
 fresh frozen plasma (FFP) 63
- gabapentin 58
 gabapentinoids 57–58, **125**
 gallop rhythm 140
 gastric contents
 pH modification 45–46
 volume modification 45–46
 see also aspiration of gastric contents
 gastric reflux 11
 general anaesthesia 1–3
 emergence from 86–87
 induction 69–70
 children 108
 rapid-sequence induction 100–101
 maintenance 80–82
 children 108
 inhalational anaesthesia 80
 TIVA 80–81
 see also recovery from anaesthesia
 giving sets 37
 Glasgow Coma Scale (GCS) 141, **142, 144**
 glyceryl trinitrate (GTN), prophylactic 46
- haematological disorders 17
 haematoma, airway compression 144
 haemodilution, preoperative 63
 haemodynamic status assessment 140–141

- haemorrhage, intracranial 168–169
 - see also* blood loss
- haemothorax 113
- halothane 1
- Hartmann's solution **62**
- head tilt and chin lift 138, **138**
- headache, epidural analgesia and 96, 129
- heart failure 9, 157
 - medical referral 16
 - treatment 157
- hiatus hernia 11
- high-airflow oxygen enrichment (HAFOE) 115–116, **116**
- high-flow nasal oxygen 116
- hospital-acquired pneumonia (HAP) 148
- Hudson mask 115, **115**
 - with reservoir 115, **116**
- hyoscine **58**
- hypertension 10
 - during tracheal intubation 76
 - medical referral 16
 - postoperative 118
- hypoglycaemia 167–168
 - see also* diabetes
- hypotension 152–157, 158
 - cardiac output-related 116–117, 157
 - causes **141**
 - central neural blockade complications
 - 96, **96**, 128–129
 - hypovolaemia-related 116, 140, 153–154
 - induction of anaesthesia **47**
 - postoperative 116–118, 140
 - vasodilatation-related 117–118, 157
- hypothermia 113
- hypovolaemia 116, 140, 153–154
 - acute kidney injury development 157
 - causes 153
 - diagnosis 116, 140
 - investigations 154
 - management 153–154
 - reduced conscious level and 170
 - regional anaesthesia contraindication 95
- hypoxaemia, postoperative 111–116
 - alveolar hypoventilation 112–113, **112**
 - diffusion hypoxia 114
 - management 114–116
 - oxygen therapy effect **114**
 - pulmonary diffusion defects 114
 - reduced conscious level and 170
 - ventilation/perfusion mismatch 113–114, **114**
- hypoxia
 - diffusion 114
 - during tracheal intubation 76
- induction of anaesthesia 69–70
 - aspiration during 79
 - children 108
 - rapid-sequence induction 100–101
- infiltration analgesia 92
- informed consent 21–23
 - children 106
 - evidence of consent 23
 - information provision 22–23
 - unconscious patients 23
- inhalational anaesthesia 80
 - drugs 48–49, **48**
- intensive care unit (ICU) 4–5
- intermittent positive pressure ventilation (IPPV) 35
- internal jugular vein access 67, **67**
 - complications **68**
- intracranial haemorrhage 168–169
- intravenous access 36, 66–68
 - central venous cannulation 66–68
 - femoral vein 68
 - internal jugular vein 67, **67**, **68**
 - subclavian vein 67–68
 - children 108
 - peripheral venous cannulation 66
 - complications **67**
- intravenous fluid therapy 118–122
 - anaphylaxis 156
 - hypovolaemic shock 153
 - major surgery 121–122
 - clinical assessment 122
 - stress response 122
 - third space losses 121
 - minor surgery 120–121
 - monitoring 122
 - planning 120
 - pneumonia 149
 - pulmonary embolism 152
 - replacement 119–120
 - routine maintenance 118–119
 - sepsis 155
 - see also* fluids; intravenous access
- intubation *see* tracheal intubation
- isoflurane 1, **48**
- jaundice 11
- ketamine **47**, 58
- knee replacement surgery 124
- laparotomy 124
- laryngeal mask airway (LMA) 26–27, 27
 - insertion 72, 73
- laryngeal spasm 76
 - children 108
- laryngectomy 145, **147**
- laryngoscopes 28–30, **29**, **30**
- lateral position 83, **83**
- left ventricular dysfunction 117, 157
- leg weakness, epidural analgesia and 129
 - worsening/severe 130
- levo-bupivacaine **61**, 92
- lidocaine 3, 60, **61**, 92, **105**
- lithotomy position 83

- liver function tests 14
- Lloyd-Davies position 83
- local anaesthesia 3
 - monitoring 95
 - role of 90–91
 - techniques 91–92
- local anaesthetic drugs 58–60, **61**
 - mechanism of action 59
 - toxicity 96–97
 - circulatory collapse 97
 - management 97
- low urine output *see* oliguria
- lung disease *see* respiratory diseases

- malignant hyperpyrexia (hyperthermia) (MH) 49–50
 - management 50
 - anaesthesia 50
 - presentation 50
- Mallampati criteria 13, **14**
- mechanical ventilation 35, 81–82
 - effects of 81–82
 - modes of 35
 - one-lung ventilation 102–103, **103**
 - removal of 87
- medical air 31
 - cylinder colour **31**
- medical emergencies *see* perioperative medical emergencies
- medical history 9–10
 - cardiovascular system 9–10
 - respiratory system 10
- medical referral 16–17
- medication history 11–12
- metoclopramide 46, **58**
- midazolam **47**
- minimal alveolar concentration (MAC) 49, **49**
- mivacurium **53**
- monitoring
 - breathing systems 44
 - oxygen supply 44
 - see also* patient monitoring
- morphine **55, 105**
 - preparations **126**
 - see also* opioid analgesics
- motor block, epidural analgesia and 129
 - worsening/severe blockade 130
- multimodal techniques 124–125
- multiple organ dysfunction syndrome (MODS) 155
- muscle relaxants *see* neuromuscular blockade
- musculoskeletal system 13
- myocardial infarction (MI) 9
 - non-ST segment elevation (NSTEMI) 160
 - ST segment elevation (STEMI) 160, **160**
 - treatment 160–161

- naloxone 54, 55, 168
- nasal catheters 115, **115**
- nasopharyngeal airway 26, **26**, 70–71
 - insertion **72**

- National Early Warning Score (NEWS) 134–135, **134**
- nausea and vomiting
 - central neural blockade complications 96
 - during tracheal intubation 76
 - postoperative *see* postoperative nausea and vomiting (PONV)
- neostigmine 52, 87
- nerve blocks *see* regional anaesthesia
- nervous system 13
- neuromuscular blockade 40, 51–52
 - assessment 40, 84–85
 - depolarizing drugs 51
 - discovery 2–3
 - non-depolarizing drugs 51–52
 - reversal 52
- neuromuscular disorders 11
- nitrous oxide 1, 49
 - children 108
 - cylinder colour **31**
 - delivery to operating theatre 31
 - excretion 114
 - systemic effects 49
- non-ST segment elevation myocardial infarction (NSTEMI) 160
- non-steroidal anti-inflammatory drugs (NSAIDs) 56–57
 - contraindications **57**
 - COX inhibitors 56–57
 - sites of actions **125**
- non-technical skills 87–88

- obesity 17–18, **17**, 104–106
 - anaesthesia and 104–105, **104**
 - suggested drug doses **105**
 - cardiorespiratory warning signs **18, 18**
 - comorbidities **104**
 - postoperative care 106
 - prevalence 104
 - surgery-associated risks **20, 20**
- obstetric patients 101–102
 - aortocaval compression 102
 - failed intubation 101–102
- obstructive sleep apnoea (OSA) 17, **17**
- oesophageal Doppler cardiac output monitoring 41, **41**, **42**
- oesophageal intubation 76
- oliguria 129, 157–159
 - causes 157
 - diagnosis 159
 - investigations 158–159
 - treatment 158
- omeprazole 46
- ondansetron **58, 119**
- one-lung ventilation (OLV) 102–103, **103**
- opioid analgesics 52–55, **53**
 - acute pain management 125
 - central and peripheral effects **54**
 - overdose 54, 168
 - treatment 168
 - pure agonists 54–55, **55**

- opioid analgesics (*cont'd*)
 - pure antagonists 55
 - regulation of 55–56
 - disposal 56
 - supply and custody 56
 - sites of actions 125
- optical stylets 30, 30
- oropharyngeal airway 26, 26, 70
 - insertion 71
- outreach teams 135, 135
- oxygen
 - cylinder colour 31
 - delivery devices 115–116
 - fixed-performance 115–116, 116
 - high-flow nasal oxygen 116
 - variable-performance 115, 115, 116
 - delivery to operating theatre 31
 - supply monitoring 44
 - ventilation/perfusion mismatch 113–114, 114
- paediatrics *see* children
- pain 123
 - acute pain assessment 123–124
 - scoring system 124
 - difficult pain problems 130
 - factors affecting experience of 123
 - management of 5, 123–130
 - chronic pain 5
 - see also* analgesia; analgesic drugs
- pancuronium 2–3
- paracetamol 57, 105
- parecoxib 57
- parental responsibility 106
- patient monitoring 38–44, 39, 65–66
 - bispectral index (BIS) 43, 43
 - blood loss 43–44
 - blood pressure 38, 40
 - capnometry 39, 40
 - cardiac output 41–43, 41, 42
 - central venous pressure (CVP) 40–41
 - ECG 38
 - epidural anaesthesia 95
 - fluids 122
 - peripheral nerve stimulator 40
 - pulse oximeter 38–39
 - spinal anaesthesia 95
 - temperature 40
 - vapour concentration analysis 39
- patient warming 37, 79–80
- patient-controlled analgesia (PCA) 125–127
 - advantages and disadvantages of 127
- perioperative medical emergencies
 - acute shortage of breath 143–152
 - lower airway problems 145–152
 - upper airway obstruction 143–145
 - anaphylaxis 155–156
 - assessment 136–143
 - airway 137–138, 137, 138
 - breathing 140–142
 - circulation 140–141
 - exposure/examination 142
 - initial approach to patient 136–137
 - neurological state 141–142
 - cardiac arrest 162–166
 - cardiac arrhythmias 161–162
 - chest pain 159–161
 - hypotension 152–157
 - cardiogenic shock 157
 - hypovolaemic shock 153–154
 - sepsis and septic shock 154–155
 - low urine output 157–159
 - outreach teams 135, 135
 - patient information 135
 - deterioration 143
 - reduced conscious level 167–170
 - hypoglycaemia 167–168
 - opioid narcosis 168
 - status epilepticus 169–170
 - stroke/intracranial haemorrhage 168–169, 169
 - scoring systems 134–135, 134
- peripheral nerve blocks 127
- peripheral nerve stimulator 40
- physicians' assistant (anaesthesia) 4
- physostigmine 2
- piped medical gas and vacuum system (PMGV) 31–32
- platelet concentrates 63
- pneumonia 148–149
 - diagnosis 148
 - management 148–149
- pneumothorax 113, 149
 - tension pneumothorax 149–150
- positioning the patient 82–84
 - lateral position 83, 83
 - prone position 83–84, 84
 - supine position 82–83, 82
 - 15° lateral tilt 102, 102
- positive end expiratory pressure (PEEP) 35
- postanaesthesia care unit (PACU) 4, 110, 111
 - discharge of patient 111, 111
 - equipment 111
- postdural puncture headache (PDPH) 96, 129
- postoperative care
 - immediate 4
 - obese patients 106
- postoperative complications *see* complications
- postoperative nausea and vomiting (PONV) 118
 - antiemetics 58, 58, 118
 - premedication 46
 - risk assessment 12–13
 - treatment pathway 119
- pregabalin 58
- pregnancy 12, 101
 - aorticaval compression 102
 - caesarean section 101–102
- premedication 45–46
 - analgesia 46
 - antiemetics 46
 - gastric contents modification 45–46

- preoperative assessment 4, 8–9
 baseline investigations **8**
 postoperative nausea and vomiting risk 12–13
see also anaesthetic assessment
- preoperative checks 65
- preoxygenation 69
- pressure-controlled ventilation (PCV) 35
- pressure-support ventilation (PSV) 35
- prilocaine 60
- primary percutaneous coronary intervention (PPCI) 160–161
- procaine (novocaine) 3
- prone position 83–84, **84**
- propofol **47, 80, 105**
- pruritus, epidural analgesia and 129
- pseudocholinesterase deficiency 51
- pulmonary diffusion defects 114
- pulmonary embolism 151–152, **152**
- pulmonary function tests 15
- pulmonary oedema 150–151, **151**
 causes 150, **150**
- pulse analysis cardiac output monitoring 41–43, **42**
- pulse oximeter 38–39, 139, 140
- pulseless ventricular tachycardia (pVT) 163–165
- pupil assessment 141
- ramping pillow **104**
- ranitidine 46
- rapid-sequence induction 100–101
- Reason, Story, Vital Signs, Plan (RSVP) 135
- recovery from anaesthesia 110–111
 analgesia 123–130
 patient-controlled (PCA) 125–127
 regional techniques 127–128, **128**
 complications *see* complications
 enhanced recovery programme 130–131
 intravenous fluid therapy 118–122
 monitoring 122
 planning 120–122
 replacement 119–120
 resuscitation 120
 routine maintenance 118–119
 postanaesthesia care unit (PACU) 4, 110, 111
- recovery unit 4, 110
- recreational drug use 12
- red cell concentrates 63
- regional anaesthesia 3
 awake versus anaesthetized patients 97
 brachial plexus block 92
 caudal block 108
 epidural anaesthesia 93–94, **93**, 127–128
 monitoring 95
 peripheral nerve blocks 127
 postoperative analgesia 127–128, **128**
 role of 90–91
 spinal anaesthesia 94–95, **94**
 transversus abdominis plane (TAP) block 92–93, **92**, 127
- remifentanyl **55**
- renal disease 16, 157–159, **158**
 acute kidney injury (AKI) 157
 aetiology **158**
 chronic renal failure 11
 diagnosis 159
- respiratory depression 112
 central 113
 epidural analgesia complications 129
- respiratory diseases 10, 16
 medical referral 16
 signs of 139
- respiratory system
 examination 13
 investigations 15–16
 medical history 10
 obese patients 17–18
see also airway; respiratory diseases
- resuscitation 120
 cardiopulmonary (CPR) 163–166, **165, 166**
see also fluids
- rheumatoid disease 11
- risks, anaesthesia- and surgery-related 18–19
 indicators 19–20, **19**
 obese patients 20, **20**
- rocuronium **53, 105**
- ropivacaine 60, **61**
- scavenging systems 36
- seizures 169–170
- Seldinger cannula 36, 37
 arterial cannulation technique 69
 central venous cannulation technique 68
- Sellick's manoeuvre 100, **100**
- sepsis 154–155
 treatment 155
- septic shock 118, 154–155
- sevoflurane 1, **48**
 vaporizer 33
- shock 140–141, 153
 cardiogenic 157
 hypovolaemic 140–141, 153–154
 septic 118, 154–155
- shortage of breath, acute 143–152
 lower airway problems 145–152
 asthma 145–148
 pneumonia 148–149
 pneumothorax 149
 pulmonary oedema 150–151, **151**
 tension pneumothorax 149–150
 upper airway obstruction 143–145
 blocked tracheostomy 145
 external compression after surgery 144–145
 reduced conscious level and 144
 swelling/tumour 144
- sickle cell screen 15
- sign in 65
- sign out 86
- sinus bradycardia 117
- sinus tachycardia 117

- Situation, Background, Assessment, Response (SBAR) 135, **135**
- situational awareness 88
- smoking 12
- social history 12
- sodium citrate, oral 46
- spinal anaesthesia 3, 91, 94–95, **94**
- complications 95–96, **96**, 130
 - contraindications 95
 - monitoring 95
- ST segment elevation myocardial infarction (STEMI) 160, **160**
- status epilepticus 169–170
- causes 169
 - investigations 170
 - refractory 170
 - treatment 169–170
- steroids
- anaphylaxis management 156
 - prophylactic 46
- stovaine 3
- stress response 122
- stroke 168–169, **169**
- subclavian vein access 67–68
- sugammadex 52
- supine position 82–83, **82**
- supraglottic airway (SGA) devices 26–27, **27**, 71–72
- insertion 72, **73**
 - removal 87
- surgery classification 20
- surgical safety checklist 65
- suxamethonium 2, 51, **105**
- side-effects **51**
- syringe pumps 38
- systemic inflammatory response syndrome (SIRS) 154
- tachycardia 117, 161–162
- cardioversion 162
 - pulseless ventricular tachycardia (pVT) 163–165
- target-controlled infusion (TCI) 80
- task management 88
- team working 88
- tension pneumothorax 149–150
- thermistors 40
- thiopental **47**, **105**
- thoracic surgery 102–104
- thoracostomy 150
- thrombolytic therapy, pulmonary embolism 152
- thyromental distance 13, **14**
- time out 84
- tongue, airway obstruction **70**
- total intravenous anaesthesia (TIVA) 50–51
- advantages and disadvantages 81
 - emergence from 87
 - maintenance 80
- total knee replacement 124
- tracheal intubation 3
- anaphylaxis management 156
 - complications 76
 - difficult and failed intubation 76–78
 - management guidelines 77–78, **77** - equipment 73–74
 - indications **74**
 - technique 74, **75**
- tracheal tubes 3, **27**, **28**
- confirming the position of 74–75
 - introducers 30
 - removal of 87
 - see also* tracheal intubation
- tracheostomy **146**
- blocked 145
- track and trigger systems 134–135
- tramadol 54
- transcutaneous pacing 162
- transfer to operating theatre 82
- ABCDE checklist **82**
- transthoracic echocardiography (TTE) 154
- transversus abdominis plane (TAP) block 92–93, **92**, 127
- trauma, during tracheal intubation 76
- Trendelenburg position 83
- troponin 160
- ultrasound 37–38
- unconscious patient *see* consciousness level
- unstable angina 159–160
- urinalysis 159
- urinary retention, epidural analgesia and 129
- urine output
- absent *see* anuria
 - low *see* oliguria
- vacuum 32
- vaporizers 32–33, **33**
- vasodilatation 117–118
- vecuronium 3, **53**, **105**
- venous thromboembolism (VTE)
- prevention 21
 - risk factors 21
- ventilation
- impaired mechanics 113
 - one-lung (OLV) 102–103, **103**
 - spontaneous 81
 - see also* mechanical ventilation
- ventilation/perfusion mismatch 113–114, **114**
- ventricular fibrillation (VF) 163–165
- videolaryngoscopes 28–30, **29**
- volume-controlled ventilation 35
- vomiting *see* nausea and vomiting
- WHO safety checklist 77, 84
- Wilson score 13