

# Index

- abbreviations and acronyms 8
- ABCDE approach 48
  - for burns patients 54–55
- acromegaly 45–46
- Acutely Ill Patients in Hospital* (NICE document), recommendations of 129
- adverse drug reactions (ADRs), yellow card scheme 98
- allergy testing 138
- allodynia 58
- amitriptyline overdose, features of 90
- amniotic fluid embolism (AFE) 47–48
- anaesthetic agents, mechanism of action 198–199
- anaesthetic breathing systems 66–67
- anaphylactic reactions 137–138
- anterior resection, anaesthesia options for 171–172
- antibiotics
  - and MRSA 161
  - resistance to 112
  - for VRE 113
- antidepressant overdose, features of 90
- antiemetics 116
- antimuscarinics 106
- arterial pulse, digital examination of 74–75
- aspiration of abdominal content 48
  - factors increasing risk intraoperatively 49
  - reduction of risk in perioperative period 49–50
- assessment *see* preoperative assessment
- atrial fibrillation 192
  - discovery of preoperatively 102–103
  - immediate management of 193
  - possible causes 192–193
- awareness under anaesthesia, minimisation of 50–51
- axilla-inferior border of pectoralis major, drawing of 64
- bacterial resistance 112–113
- bariatric surgery 65
- beating-heart donation (BHD), advantages over NHBD 111
- Birmingham Wire Gauge system, diameter of needles 190
- bleeding
  - during late pregnancy 113–114
  - recombinant factor VIIa for prevention of 174–175
  - variceal 200
- blood donation 99
  - crossmatching of blood 100
  - products from 99
  - storage of 100
- blood pressure measurement 53
  - non-invasive methods 53
  - selecting appropriate cuff size 53
  - transducer for invasive 53
- blood transfusion
  - complications of 51–52
  - cryoprecipitate, contents of 100
  - ensuring patient receives correct 52
  - triggers for platelet transfusion 100
- brachial plexus 63–64
- burn patients 54–56
- caesarean section
  - management of emergency 114–115
  - optimisation of cardiovascular function 76
- calorie requirements, calculation of 60–61
- ‘can’t intubate, can’t ventilate’ (CICV)
  - situation, response to 84–85, 110
- carbon dioxide (CO<sub>2</sub>) carriage 153–154
- carcinoid syndrome/tumour 67–68
- cardiac cycle, waveform diagram 73–74
- cardiopulmonary bypass, reasons for patient failing to wean from 85–88
- cardiopulmonary exercise testing (CPEx) 59
- cardiovascular effects of pregnancy at full term 75–76
- care bundles 180
- cataract surgery, anaesthesia options 185–186
- catheters, sizing system 190
- central venous catheter (CVC)
  - infection risk, minimising 87–88
  - waveform diagram 74

- central venous pressure, factors increasing/  
decreasing 74
- cerebral perfusion pressure (CPP),  
maintenance of 95
- children
  - choice of crystalloid 56
  - and DNAR orders 104
  - fluid restriction 57
  - gaseous induction in 79
  - maintenance fluid regimen 57
- CICV ('can't intubate, can't ventilate')  
situation, response to 84–85, 110
- CIPN *see* critical illness polyneuropathy
- circle of Willis
  - illustration of anatomy of 118–119
  - physiological importance and causes of  
failure 119–120
- citrate phosphate dextrose 100
- cleaning, definition of 184
- clinical evaluation, prior to emergency  
caesarean section 113–114
- clinical trials, purposes of each phase 98
- co-axial Mapleson D anaesthetic breathing  
system 66–67
- coeliac plexus 135
  - anatomy of 135
  - indications for blockade 136
  - performing the block 136
- consciousness, causes of reduced 165–166
- consent for epidural analgesia, obtaining  
171–172
- controlled drugs (CDs), classification and  
handling 155
- Cormack and Lehane grades of difficult  
laryngoscopy 109
- corticosteroid treatment for SLE, complications  
of 177–178
- CPEX (cardiopulmonary exercise testing) 59
- Creutzfeldt-Jakob disease (CJD) *see* variant CJD
- cricothyroidotomy 84–85
- critical care outreach teams, advantages and  
disadvantages 128–129
- critical illness polyneuropathy (CIPN) 72
  - clinical features 72
  - diagnosis 72–73
  - predisposing factors 72
  - ventilated patient, difficulties in  
management of 73
- cryoprecipitate, contents of 100
- crystalloid for intravenous fluid 56
- CVC *see* central venous catheter (CVC)
- day case surgery
  - anaesthesia leading to PONV 115–116
  - factors making patient unsuitable for 88–89
  - reducing risk of drug errors 91–92
  - use of regional anaesthesia 89
- decontamination, definition of 184
- delirium 70
  - causes 70–71
  - definition 70
  - minimising incidence of 71
- diagrams in SAQ exam 6–7
- difficult questions 11
- digoxin 102
  - action of 102
  - presentation and indications 102
- Diprivan propofol, constituents of 62
- disinfection, definition of 184
- disseminated intravascular coagulopathy  
(DIC) 175
- diuretics
  - action on nephron 76–78
  - anaesthesia risks 78
- Do Not Attempt to Resuscitate (DNAR) orders  
103–104
- drugs
  - for burns 56
  - controlled 155
  - four phases of clinical trials 98
  - for hyperthyroidism 123
  - for long operations 141
  - overdose (OD) 90–91
  - recreational 155
  - reducing risk of errors 91–92
  - for status epilepticus 183
  - transdermal delivery of 151–152
  - for weight reduction 65
  - yellow card scheme 98
- ENIGMA trial of nitrous oxide 188–189
- epidural anaesthesia
  - for anterior resection, patient consent 171–172
  - pain with contractions 186
  - safety improvements 92
  - treatment of PDPH 131
- epidural space, diagram of 171–172
- extubation, laryngospasm following 109
- fascia iliaca block, performance of 45
- femoral triangle 43–44
- fibreoptic bronchoscope
  - cleaning 93
  - uses 93
- Final FRCA, reasons for 2–3
- Fischer scale for SAH 191
- flow in tubes, factors determining 189–190
- fluid management
  - choice of crystalloid 56
  - fluid restriction, sick children 57
  - paediatric maintenance regimen 57
- fetus
  - effects of anaesthetic 164
  - impact of maternal spinal surgery 165
  - relative hypoxaemia 142
- free flap surgery 120
  - ischaemia risk 120–121
  - maintaining adequate perfusion for 121
- French Gauge system, diameter of medical  
tubes 190
- frequently asked questions (FAQs) 2
  - abbreviations and acronyms 8
  - best answer plan tactic 5–6
  - detail in a question, catching 7–8
  - detailed and comprehensive answers,  
balancing 7
  - difficult questions 11
  - 'dodgy' questions 10
  - final FRCA, reasons for 2–3
  - handwriting, spelling and grammar 8–9
  - initial question, ease/difficulty of 11
  - irrelevant thoughts, dealing with 10
  - keywords, identifying 7
  - order of answers 3

- preparation just before exam 5
- references, use of 8
- repeated questions 4–5
- revision tips 11–12
- SAQ paper
  - contents of 3
  - when set 3
- scoring scheme 3–4
- spelling and grammar 8–9
- starting an answer 6
- stem of question 6–7
- sub-specialities, representation of 4
- timing issues
  - division of time between parts of question 10
  - importance of being strict with 9
  - running out of time 11
- unanswerable questions 10
- writing per question, amount of 9
- GABA receptor, and action of volatile anaesthetic agents 199
- gabapentin, action and uses of 58
- gaseous induction 78–79
  - effect of upper airway obstruction 79–80
  - ideal properties of volatile agent 79
  - more rapid in children 79
- gastric contents, control of 49
- gastric pH, drugs elevating 104–106
- gastric varices, formation of 200
- gastro-oesophageal reflux (GOR), reduction of 50
- general anaesthesia (GA)
  - awareness, prevention of 50–51
  - emergency caesarean section 114–115
  - monitoring of induction and maintenance 127–128
  - during long operations 140–141
  - ST elevation during 136–137
- goitre 121–123
- Graves disease 121–123
- haemofiltration for acute renal failure 168–170
- haemorrhage classification 114
- Hagen-Poiseuille equation, laminar flow 189
- Haldane effect 154
- head injury
  - and raised ICP 94–95
  - traumatic brain injury 166–167
- headache, post dural puncture 130–131
- heat loss
  - effects of 126
  - mechanisms 126–127
  - minimisation of 127–128
- high spinal blockade, symptoms and signs 168
- HIV-positive male 123–125
- hospital-acquired infections 112–113
- humidity 95
  - definition of 95
  - importance of ensuring appropriate level of 96
  - measurement devices 96
- Hunt and Hess grading system for SAH 191
- hyperalgesia 58
- hyperthyroidism
  - airway evaluation 122
  - drug treatment 123
  - risks of anaesthesia 122–123
- hypothermia, intraoperative 125–127
- hypoxia precipitating sickle cell crisis 175–176
- IABP (intra-aortic balloon pump) 85
- ICP *see* intracranial pressure (ICP)
- iLMA *see* intubating laryngeal mask
- indirect calorimetry 61
- infection
  - bacterial 112–113
  - controlling 183–184
  - MRSA, risks and prevention 160–161
- initial question 11
- intensive care
  - CVC-related infection, minimising 87–88
  - delirium patients 70–71
  - management of SAH 191–192
  - renal replacement 168–170
  - timeline for organ donation 111
  - and total parenteral nutrition (TPN) 60–61
- intermittent positive pressure ventilation (IPPV) 66
- interscalene block, potential complications 64
- intra-aortic balloon pump (IABP), action and uses of 85
- intracranial pressure (ICP) 94
  - management of raised 95
  - reasons for rise in 94
- intraoperative hypothermia 125–127
- intravenous intraoperative fluid, crystalloid for 56
- intubating laryngeal mask (iLMA) 110
- intubation
  - CICV situation 84–85
  - disadvantages of endotracheal 131–132
  - using an iLMA 110
- IPPV (intermittent positive pressure ventilation) 66
- journals, value of reading 12
- keywords, identifying in SAQs 7
- lactic acid, production of 106–107
- lactic acidosis, causes of 107
- laminar flow in tubes 189–190
- laparoscopic cholecystectomy
  - obese patients 138–140
  - Parkinson's disease 80–81
  - systemic lupus erythematosus (SLE) 177
- laryngeal mask airway (LMA) 110
  - decontamination of 184
- laryngospasm
  - causes and differential diagnosis 109
  - management 109
- larynx, view of 108–109
- 'letter to GP' questions in SAQ test 7
- life-threatening emergencies, ABCDE approach 48
- lipid emulsion
  - drug presentation 61–62
  - LA toxicity 61
  - for TPN 61
- litigation, minimisation of 50–51
- liver disease 68–69
  - anaesthesia for 70
- LMA *see* laryngeal mask airway

- local anaesthetic (LA) toxicity and lipid emulsion 61
- long operations, problems of 140–141
- lupus erythematosus 177–178
- magnesium
  - harmful effects 158–159
  - physiological role 157–158
  - therapeutic role 158
- magnetic resonance imaging (MRI) scanners
  - difficulties of anaesthetising patient in 159–160
  - image generation by 159
- Mapleson D anaesthetic breathing system 66–67
- marks, scoring of 3–4
- medical equipment, sterilisation techniques for 184
- Melker kit, trans-tracheal ventilation 84
- methadone addiction and pain management 117–118
- methicillin-resistant *Staphylococcus aureus* (MRSA) infection
  - preventing spread of 160–161
  - risk of developing 160–162
- Misuse of Drugs Act (1971), drug classification 155
- model answers, notes about 13
- mortality, prediction of postoperative 146–147
- MRI *see* magnetic resonance imaging (MRI) scanners
- MRSA *see* methicillin-resistant *Staphylococcus aureus* (MRSA) infection
- National Institute for Clinical Excellence (NICE)
  - Acutely Ill Patients in Hospital document 129
  - recent report on VAP 162
  - role of 161–162
- nausea, postoperative 115–116
- needles, measurement system 190
- neonates, pharmacokinetic differences from adults 142–143
- nephron
  - action of diuretics 77–78
  - diagram of 76–77
- neuroendocrine tumours 67–68
- neuropathic pain 58
- NHBD *see* non-heart-beating organ donation
- NICE *see* National Institute for Clinical Excellence
- nitrous oxide for GA 188
  - benefits of using 189
  - disadvantages 188–189
- nociception 57
- non-heart-beating organ donation (NHBD)
  - criteria for 111
  - process 111
  - versus beating-heart donation (BHD) 111
- non-steroidal anti-inflammatory drugs (NSAIDs), cautions and contraindications 163
- normal distribution 181
- nutrition 60–62
- obesity 65
  - anaesthetic challenges 138–140
  - positioning for preoxygenation 65
  - treatment options for reducing 65
- obstetrics
  - effect of anaesthetic on 8-week fetus 164
  - emergency section 114–115
  - epidural drug delivery
    - pain persisting after 186
    - safety improvements 92
  - full-term pregnancy, cardiovascular changes 75–76
  - instrumental delivery 186–187
  - pre-eclampsia 147–149
  - problems of urgent maternal surgery 164–165
- one-lung ventilation (OLV)
  - indications for 83–84
  - methods for 83
- opioid dependency, pain management in 117–118
- optimisation for surgery 59
- organ donation 110–111
- oscillometric measurement of blood pressure 53
- outreach services, advantages and disadvantages 128–129
- overdose (OD) of drugs by patient 90–91
- oxygen cylinder markings 143
- oxygen required for safe transfer 143–144
- oxygen saturation
  - in the fetus 142
  - measurement inaccuracies 128–129
- P-POSSUM scoring 147
- paediatric anaesthesia 56–57
- paediatrics, calculation of maintenance fluid regimen 57
- pain 57
  - definitions 57–58
  - gabapentin for 58
  - management
    - after thoracic surgery 172–174
    - in opioid dependency 117–118
  - NSAIDs, cautions/contraindications 163
  - spinal cord stimulation 149
  - WHO pain relief ladder 163
- paracetamol
  - advantages of IV dose following GA 163–164
  - investigation/monitoring of OD 90–91
- parietal cells, gastric acid production 105
- Parkinson's disease 80
  - anaesthetic considerations 80–81
- past papers, questions repeated from 4–5
- PBI (primary brain injury) 166
- PCV (pressure-control ventilation) 201–202
- pen advice for SAQs 13
- percutaneous tracheostomy, advantages 131–132
- phacoemulsification, contraindications to regional anaesthesia 185
- pharmacokinetic differences, adults and neonates 142–143
- 'the phrase that pays' 6
- pleural effusions 144
  - classification 145
  - identification tests 145–146
  - signs and symptoms 144
- PONV *see* postoperative nausea and vomiting
- post-dural-puncture headache (PDPH)
  - risk factors for 130–131
  - treatment options 131

postoperative nausea and vomiting (PONV) 115	sickle cell disease (SCD) 176
preventive measures 116	anaesthetic considerations for HbSC patient 176
risk factors 115–116	hypoxia precipitating sickle cell crisis 175–176
post-partum headache, differential diagnoses 130	SLE (systemic lupus erythematosus) 177–178
pre-eclampsia 147–148	smoking cessation advice 178–179
definition and diagnosis 148	sodalime 154
management of 149	specificity, statistical measure 181–182
physiological effects of 148–149	spinal blockade
preoperative assessment	factors affecting spread of anaesthesia 167–168
cancer patient 58–59	symptoms and signs of high 168
HIV-positive male 123–125	spinal cord 156
risk assessment 146	acute injury, management of 194–195
P-POSSUM scoring 147	complete transverse lesion 157
patient risk factors 146–147	transverse section, drawing of 156
pressure-control ventilation (PCV) vs. volume-control ventilation 201–202	unilateral lesion 156–157
pressure-point care, long operations 141	spinal cord stimulator (SCS)
primary brain injury (PBI) 166	complications of 150
prone position	indications for 150
complications of anaesthesia 97–98	spontaneous ventilation 66–67
physiological changes associated with 97	ST elevation on ECG 136
propofol, lipid emulsion 61–62	management of
prostaglandin analogues 106	after wound closed 137
proton pump inhibitors 106	during surgery 136–137
pulmonary aspiration 48–50	statistics 180–182
pulse, digital examination of 74–75	status epilepticus (SE) 182
pulse oximeter, causes of inaccurate readings 128–129	causes of 182–183
	management of 183
	stems in questions, meaning of 6–7
	sterilisation 184
	steroid therapy for SLE, complications of 177–178
quantity of writing per SAQ 9	Stubs Iron Wire Gauge system, diameter of needles 190
recombinant factor VIIa (rFVIIa)	sub-Tenon's anaesthesia, advantages of 185–186
benefit in clinical practice 175	subarachnoid haemorrhage (SAH)
clotting cascade 174–175	classification systems 191
development of disseminated intravascular coagulopathy (DIC) 175	intensive care management 191–192
reconstructive surgery 120–121	supraclavicular blockade, surgical indications for 64
recreational drugs, classification of 155	Surviving Sepsis Campaign, resuscitation bundle 179–180
references in answers to SAQs 8	systemic lupus erythematosus (SLE) 177–178
regional anaesthesia	
for cataract surgery, contraindications 185	TBI (traumatic brain injury) 166–167
day case use of 89	teamwork, long operations 141
elective caesarean section 76	test papers, taking and marking 12–14
for pain relief following thoracotomy 173	theatre list
pros and cons of ultrasound guidance 197–198	delays, factors leading to 101
remifentanyl for sedation 132–133	ways to improve efficiency 101
renal replacement on ICU 168	thoracotomy, postoperative analgesia 172–174
criteria for starting 168–169	'three-in-one block', indications for 44–45
principles of filtration 169	timing during exam
risks of 169–170	division of time between parts of question 10
revision tips 11–12	importance of being strict with 9
Reynold's number, flow in tubes 190	running out of time 11
risk assessment, preoperative 146–147	when taking test papers 12–13
Royal College of Anaesthetists, duties of 2–3	total parenteral nutrition (TPN)
	indications for 60
SAH <i>see</i> subarachnoid haemorrhage (SAH)	use of lipid emulsion 61
scoring of SAQ test papers 13–14	tracheal carina, anatomical relations 82–83
secondary brain injury (SBI) 166–167	tracheal extubation, laryngospasm following 109
sedation	tracheostomy
advantages of changing to remifentanyl 133–134	advantages of percutaneous 131–132
problems within critical care 133	assessment for decannulation 131
sensitivity, statistical measure 181–182	transdermal delivery of drugs 151–152
sepsis 179–180	

- transducer, invasive blood pressure measurement 53
- transphenoidal hypophysectomy 45–46
- transtracheal ventilation 84–85
- transurethral resection of the prostate (TURP) syndrome 196–197
- transverse abdominal plane, anaesthetic blockade of 195–196
- traumatic brain injury (TBI) 166–167
- tricyclic antidepressant overdose, features of 90
- tubes, measurement systems for 190
- turbulent flow in tubes 190
- TURP syndrome 196–197
- Type I and II errors 181
- ultrasound (US) guidance in regional anaesthesia, advantages and disadvantages 197–198
- vancomycin-resistant enterococci (VRE)
  - antibiotics for 113
  - clinical problems caused by 112–113
- VAP (ventilator-associated pneumonia) 162
- variant CJD 133
  - special precautions 133
- variceal bleeding
  - management, physical and pharmacological methods 200
  - reducing risk of 200
- varices, formation of 200
- venous thromboembolism (VTE)
  - non-drug prevention of 203–204
  - risk assessment 203
- ventilation
  - CICV situation 84–85, 110
  - criteria for weaning from 202
  - during long operations 140
  - intermittent positive pressure (IPPV) 66
  - Mapleson D anaesthetic breathing system 66–67
  - one-lung ventilation 82–83
  - percutaneous tracheostomy 131–132
  - pressure vs. volume control 201–202
  - problems in patients with CIPN 73
  - transtracheal 84–85
  - ventilator-associated pneumonia (VAP), NICE report 162
- volatile anaesthetic agents
  - ideal physicochemical properties 79
  - mechanism of action 198–199
- volume-control ventilation (VCV) vs. pressure-control ventilation (PCV) 201–202
- vomiting, postoperative 115–116
- VRE *see* vancomycin-resistant enterococci
- VTE *see* venous thromboembolism
- weight reduction, treatment options 65
- World Federation of Neurological Surgeons (WFNS) scale for SAH 191
- World Health Organization (WHO) pain relief ladder 163
- yellow card scheme, adverse drug reactions 98