Index

Note: Page number followed by f and t indicates figure and table respectively.

Abbott FreeStyle Libre ambulatory glucose meter, 142, 143f
abscess
foot, 73f, 74, 80, 80f
hepatic, 81
perinephric 80, 80f
psoas (iliopsoas), 81, 83, 83f
abdominal infections, 81
ACE-inhibitors, 60
Actrapid, 92
acute coronary syndrome (ACS), 51, 53
blood glucose target in, 54
diabetes diagnosis in, 54
DIGAMI study, 54
glycaemic control in, 55f
blood glucose testing, 54
diabetic patients treated with non-insulin agents, 56
known diabetes, 54
newly diagnosed/stress hyperglycaemia, 54–6
revascularisation strategies in diabetic patients, 56
secondary prevention after, 58–9, 58t
ACE-inhibitors, 60
angiotensin receptor blockers, 60
antiplatelet treatment, 60, 60t
beta-blockers, 61
cardiac rehabilitation and exercise training, 59
diet, 59
lifestyle adjustments, 59
lipid lowering drugs, 59
medications, 59–61
smoking cessation, 59
statin treatment, 59, 60

tight glycaemic control/routine intravenous insulin infusion in, 54
acute pancreatitis (AP), 62
abdominal pain and hyperglycaemia in, 62
alcohol use and, 64
and diabetes management at discharge, 65
during admission, 64
diabetic ketoacidosis and, 62
drugs as cause of, 64
hyperglycaemia during and after, 62
radiological findings in, 63–65
triglyceride-induced pancreatitis and, 63, 63f, 64f
Type 2 diabetes and, 62, 63f
Aircast (UK) boot, 78
alogliptin (Vipidia), 107, 108t
ambulatory glucose meter, 142, 143f
angiotensin receptor blockers, 60
animal (pork) insulin, 92
antibiotics, in infections, 69–71t
antiplatelet treatment, in coronary disease, 60, 60t
antipsychotic drugs causing hyperglycaemic emergencies, 43
cause acute pancreatitis, 64
artificial pancreas, 138–9
assessment of patients with hyperglycaemia, in ED, 26, 27f
admission, need of, 26–7
dischare and follow-up, 30–31
known Type 1 diabetes, 28
management of patients not requiring admission, 29–30
newly presenting Type 2 diabetes, 29
ethnicity, 29
symptomatic hyperglycaemia, 29
weight loss, 29
assessment of patients with hyperglycaemia (continued)
new-onset Type 1 diabetes, 27–8
ethnicity, 28
Southeast Asians, 28
atorvastatin, 59
bacterial hepatic abscess, 81
bariatric surgery, in diabetic patient, 84
basal-bolus regimen, 96, 97f
in Type 1 diabetes, 96–7
in Type 2 diabetes, 97
basal insulin, 93–4, 93t, 95t, 96f
in Type 1 diabetes, 95
in Type 2 diabetes, 96
beta-blockers, 61
biosimilar insulins, 94
biphasic insulins, 93t, 94, 95t, 97
in Type 1 diabetes, 97
in Type 2 diabetes, 98
blinded glucose monitors, 141, 141f–142f
blood glucose levels, high, management of approach to patients with CBG > 20 mmol/L, 111t–112t
’stat’ doses of soluble insulin, 112–13
and death due to hypoglycaemia, 112–14, 113f, 114f
VRIII, use of, see variable rate intravenous insulin infusion (VRIII) in wards, 111–14
blood glucose levels in hospital, target for, 6
for ICU patients, 7
for MI patients, 6
for stroke patients, 6
for surgical patients, 7
‘BM’, as an unacceptable term for capillary blood glucose (CBG), 4, 10
brittle diabetes, 36
‘burnt-out’ diabetes in advanced kidney disease, 12 factors contributing to, 12
Bydureon/Bydureon pen (exenatide), 108, 121
canagliflozin (Invokana), 108
capillary blood glucose (CBG), 8, 10
capillary blood glucose meters, 133–4, 134f
dapagliflozin (Forxiga), 108
‘dead in bed’ syndrome, hypoglycaemia in, 54, 113, 113f
degludec (Tresiba), 108. See also Lantus (glargine); Levemir; Humulin I diabetes specialist nurses (DSNs), 17, 142
diabetes, obsolete nomenclature, 4, 5t, 21
diabetic foot ulcers, 72–6 admission in, 72, 74 after admission for, 74
home blood glucose monitoring, devices for, 133
hospital-based devices, 133
hyperglycaemic range, accuracy in, 134, 134f
hypoglycaemic range, accuracy in, 134
capillary blood glucose testing using home devices, 146, 146f–147f
using hospital-based system, 144f–146f
cardiac disease, presentation of, in diabetic patients, 51
acute coronary syndrome, 51
heart failure, 52
CBG, see capillary blood glucose (CBG)
cellulitis, 66–7
antibiotic treatment, 67, 69t–71t
Charcot neuroarthropathy, 77–8, 78f
chest infections, 84
chronic calcific pancreatitis, 65, 65f
continuous glucose monitoring devices, 141
typical tracings in non-diabetic subject, 139f
in well-controlled and poorly controlled Type 1 diabetes, 140f, 141f
continuous subcutaneous insulin infusion (CSII insulin pump), 139–140, 139f
coronary bypass graft, and infection risk, 84
counter-regulation to hypoglycaemia, 15, 16f, 118
cystitis, treatment, 80
emphysematous, radiological appearances, 81f

DAFNE (Dose Adjustment for Normal Eating), 97
discitis, 82, 82f
and vertebral osteomyelitis, 83f
DKA, see diabetic ketoacidosis
DPP4 inhibitors (gliptins), 107, 108t

Eastern Europeans, Type 1 diabetes
in, 28
empagliflozin (Jordiance), 108
emphysematous cholecystitis, 81, 81f
diabetic ketoacidosis (DKA), 13, 32, 62,
155–6
diagnosis of, 32, 32t
differential diagnosis of, 33f
discharge
checklist for, 38
planning for, 38
indicators of severity in, 33t
insulin deficiency and, 14
intravenous insulin at 6 U/hr in, 32
ketone body metabolism in, 14f
management of, 34
complex cases in ICU, 34, 35
eating and drinking, 37
electrolytes at 8 hours, checking
of, 37
general expected trajectory of
patients, 34t
history in, 36
from 4–12 hours, 36–7, 37f
from 12–24 hours, 37–8
up to 4 hours, 36
immediate treatment, 34–5
prescriptions, 35
questions in, 35
routine cases, 34
routine investigations, 35
on-call guide to, 154–6
diabetic myonecrosis, 82
diabetic nephropathy, 15
diagnosis of diabetes in hospitalised
patients, 8, 8f
DIGAMI Study, 54
discharge, from hospital, 128
discharge summary, 128
follow-up, 130
general practitioner follow-up, 130
guidelines and flowchart for patients,
130
insulin delivery devices, 129
medications, 129
sick day rules, 128–130
fasting glucose, in hospitalised
patients, 8, 8f
fibrin acid drugs, 60
‘flip-flop’ regimens, 89, 122, 156
‘Flatbush’ diabetes (ketosis-prone
Type 2), 29
foot, examination of, 73f, 142–3
Fournier’s gangrene, 67, 68f
Fulminant diabetes, 28
glibenclamide, 47, 106
gliclazide, 47, 106
glimepiride, 47, 106
GLP-1 analogues (s.c. injections), 108
glucagon, in severe hypoglycaemia,
117–18, 117f
glucose, intravenous, in severe
hypoglycaemia, 117–118
glucocorticoids
effect on insulin resistance, 126
impact on blood glucose levels, 126
potencies, 126–7t
gynaecological infections, 81
HbA1c (glycated haemoglobin), in
hospitalised patients, 8, 8f,
10–11, 11t
heart failure, in diabetes, 52
heel ulcers, 77, 77f
HHS, see hyperosmolar hyperglycaemic state
high blood glucose levels, management in ED, 29–30
on the wards, 111–114
hip replacement surgery, and infection risk, 84
history taking, 21
complications
foot complications, 25
macrovascular disease, 25
nephropathy, 25
retinopathy, 25
current treatment
GLP-1 analogues, 23
insulin, 23–4, 23f, 25f
oral hypoglycaemics, 23
diabetes diagnosis, 21
duration of diabetes, 22
honeymoon period, 22
long-term Type 1 diabetes, 22
Type 1 diabetes, 22, 22f
Type 2 diabetes, 22
honeymoon period in Type 1 diabetes, 22
Humalog, 93, 94
Humulin I, 93
Humulin R U-500, 94
hyperglycaemia
acute pancreatitis and, 62
as cardiovascular risk factor, 54
glucocorticoids dosage and, 126,
126t–127t
stroke and, 56
symptoms, 29
hyperosmolar hyperglycaemic state (HHS), 15,
40, 154–5
clinical examination, 42
correcting serum [Na+] in, 42
diagnosis of, 40t
discharge and follow up, 45
immediate treatment, 41–42
indicators of severity in, 41t
intravenous insulin at 2 U/hr in, 40
management of
anticoagulation, 45
gliclazide, 45
history in, 43
after 24 hours, 44
insulin, 43–4
long-term insulin treatment, 44
metformin, 44
0.9% NaCl, use of, 43
newly presenting Type 2 diabetes, 44
prescriptions, 43
priorities in, 41t
questions in, 42–3
routine investigations, 42, 43
up to 24–48 hours, 43
on-call guide to, 154–5
hypertriglyceridaemia associated with acute pancreatitis,
63, 63f
hypoglycaemia, 115
in emergency department, 46
presentations of, 46
treatment of, 46–7
in hospitalized patient with Type 1 diabetes, 113–14, 114f
insulin-induced, 15, 16f
management of, 115–18
mild/asymptomatic/biochemical, 116
treatment of, 116, 116f
non-diabetic causes, 118
investigations, 118
treatment, 118
severe, 116
parenteral treatment, 117, 116f
sulphonylurea-induced, 47–8, 106, 107f, 117
IDDM, as obsolete term for Type 1 diabetes, 4, 5t, 21
incretin-related antidiabetes agents, 64
infections, in diabetes, 66
abdominal infections, 81, 81f
Charcot neuroarthropathy, 77–8, 78f
chest infections, 84
diabetic foot ulcers, 72–6
dialysis patients and, 66
malignant otitis externa, 84
and multidisciplinary foot team, 79
musculoskeletal infections, 82, 82f, 83f
osteomyelitis, 75t, 76–7
postoperative infections, 84
rhinocerebral mucormycosis, 84
soft tissue infections, 66
  antibiotic treatment for, 69t–71t
  cellulitis, 66–7
  necrotizing fasciitis, 67, 68f

and tissue viability team, 79

urinary tract infections, 79–80, 80f, 81f

inpatient screening schedule, 142–3
  focused clinical examination, 143f
  vulnerable groups of patients,
  142t–143t, 143f

insulin, 13
  actions of, 13, 13f, 13t
  deficiency, 13, 14, 14f. See also
  diabetic ketoacidosis (DKA)
  and hypoglycaemia, 15, 16f
  in MI patients, 6
  resistance, 15

insulin delivery devices, 137–9
  disposable insulin pens, 138f
  injection needles, 139
  refillable insulin pens, 138f

insulin drip, see variable rate intravenous
  insulin infusion (VRIII)

insulin identification cards, 23, 23f

insulin preparations, 92
  analogue insulins, 92
  available in UK, 93t
  basal insulin, 93–4
  biosynthetic human insulins, 92
  biphasic insulins, 94
  fast-acting insulins, 93
  identifying preparations, 24–25
  non-UK insulin preparations, 94, 94t
  substituting, 102–3, 103t

insulin prescriptions, writing of, 91

insulin pumps, 98, 99f, 139–140, 139f

insulin regimen, 95
  basal-bolus regimen, 96, 97f
    in Type 1 diabetes, 96–7
    in Type 2 diabetes, 97
  basal insulin, 95t, 96f
    in Type 1 diabetes, 95
    in Type 2 diabetes, 96
  biphasic insulins, 95t, 97
    in Type 1 diabetes, 97
    in Type 2 diabetes, 98
  grouping according to action, 95t
  insulin pumps, 98, 99f
  insulin substitutions, 102–3, 103t

islet-cell transplantation, 140

lactic acidosis, metformin-induced, 104–6

LADA (Latent Autoimmune Diabetes of
  Adult Onset), 32

Lantus (glargine), 92, 93

Levemir, 93

linagliptin (Trajenta), 107, 108t

lixisenatide (Lyxumia), 108

lipaemic serum, in DKA, 34

interference with laboratory
  measurements, 34

malignant otitis externa, 84

medication, diabetes, compliance with
  and adherence to, 59, 129

metformin, 23, 56, 104, 123
  alternative plans in discontinuation,
  105
  discontinuation of, 104–5
  dosage in CKD, 105, 105t
  and lactic acidosis, 105–6
  modified-release metformin, 121

MRI, diabetic foot, indications
  for, 74

multi-vessel disease, and CABG, 56

musculoskeletal infections, 82, 82f,
  83f

Mycobacterium tuberculosis, 84

necrotizing fasciitis, 67, 68f

niacin, 60

NIDDM, as obsolete term for Type 2
  diabetes, 4, 5t, 21

non-insulin agents, 104

DPP4 inhibitors (gliptins), 107, 108t

GLP-1 analogues (s.c. injections), 108

metformin, 104–6

pioglitazone (glitazone), 107

SGLT2 inhibitors (flozins), 108

sulphonylureas (SU), 104, 106, 107f

NovoRapid, 93

octreotide, 47

omega-3 fatty acids, 60

ophthalmoscopy, direct, procedure,
  152–3, 152f

osteomyelitis, 75t, 76–7, 76f,
  77f, 82
pancreas transplantation, 138
pancreatic diabetes, and insulin
treatment, 65
pancreatitis, see acute pancreatitis (AP)
partial insulin deficiency, 15
patch pump, 139, 139f
perioperative management, 119
admission night before surgery, 120
day-case surgery, 119
intravenous fluids, 122
patients to miss more one meal, 121
patients to miss one meal, 120–1
oral agents with/without injected
GLP-1 analogues, 120
pre-operative insulin management,
121, 121t
poorly controlled patients, 119–120
peritonitis, 81
pioglitazone (glitazone), 56, 107
pravastatin, 59
procedures, in diabetes, 144
CBG testing using home devices, 146,
146f–147f
CBG testing using hospital-based
system, 144f–146f
direct ophthalmoscopy, 152–3, 152f
subcutaneous insulin injections, giving
of, 148, 148f–149f
wound dressing for diabetic foot ulcer,
150, 150f–151f
psoas abscess, 81, 82, 83f
pyelonephritis, treatment, 80
emphysematous, 80, 81f
pyomyositis, 82

random glucose, in hospitalised
patients, 8, 8f
renal abscess, 79, 80f
repaglinide, 106
rhinocerebral mucormycosis, 84
rosuvastatin, 59

sausage toe, 72, 75t, 76
saxagliptin (Onglyza), 107, 108t
septic arthritis, 76t, 82
SGLT2 inhibitors (flozins), 108
sick-day rules, for people with insulin-
treated diabetes, 128–130

Siemens Clinitek urinalysis system, 136,
137t
simvastatin, 59
sitagliptin (Januvia), 107, 108t
skeletal infections in diabetes, 75t–76t
sliding scale, see variable rate intravenous
insulin infusion (VRIII)
smoking cessation after ACS, 59
socio-economic status as risk factor for
diabetes complications, 142–3t
soft tissue infections, 66
antibiotic treatment for, 69t–71t
cellulitis, 66–7
necrotizing fasciitis, 67, 68f
spinal surgery, and infection risk, 84
Staphylococcus aureus, 66, 69t–71t, 77,
79, 82, 84
sternal wound infections, 84
steroid-induced diabetes, 126–7
glucocorticoids dosage and
hyperglycaemia, 126, 126t–127t
management
insulin-treated diabetes, 127
newly diagnosed diabetes, 127
patients with known diabetes, 127
stress diabetes, 9, 54, 55f, 56
stroke, 53, 56
glucose control during, 57
hyperglycaemia and, 56
thrombolysis in, 57
subcutaneous insulin injections, giving,
148, 148f–149f
subcutaneous insulin regimens,
emergency, 100
for newly diagnosed Type 1 patients,
100–101
for Type 2 patients, 101
sulphonylureas (SU), 47, 104, 106, 107f
agents commonly used, 106
discontinuation of, 106
in hyperglycaemia by steroids, 127
hypoglycaemia by, 106, 107f
hypoglycaemia induced by, 47–8, 118
interactions, 106
in steroid-treated patients, 106

targets for glycaemic control, in
hospital, 6
medical and surgical patients, 7
patients in ICU, 7
post-MI patients, 6
post-stroke patients, 6
technology, use of, in diabetes, 133
ambulatory glucose meter, 140, 141f
artificial pancreas, 138–139
blinded glucose monitors, 139, 139f–140f
capillary blood glucose meters, 133–4, 134f
continuous glucose monitoring devices, 139
insulin delivery devices, 135–7, 136f
insulin pumps, 137–138, 137f
islet-cell transplantation, 138
pancreas transplantation for Type 1 diabetes, 138
urinalysis, 134–5, 135t
Tresiba (degludec), 35, 93, 93t, 103t, 125
triglyceride-induced pancreatitis, 63, 63f, 64f
triple infusion regimen, in DKA, 36–7, 37f
trulicity (dulaglutide), 108, 121
Type 1 diabetes, 3
alternative/obsolete terms for, 4, 4t–5t
clinical features of, 3–4, 3f
Type 2 diabetes, 3
alternative/obsolete terms for, 4, 4t–5t
clinical features of, 3–4, 3f
urinalysis, 134–5, 135t
urinary tract infections, 79–80, 80f, 81f
antibiotic treatment, 79
bacteria involved, 79
emphysematous cystitis, 79–80, 81f
emphysematous pyelonephritis, 79–80, 80f
renal abscess, 79, 80f
variable rate intravenous insulin infusion (VRIII), 10, 87, 118, 122
alternative glucose infusions in overloaded patients, 89
changing scales, 88, 88t
definition, 87
fluids to run at same time, 89, 89t
indications for, 87t
insulin dose adjustments, 88
long-acting insulin, continuation of, 88
principles of, 88
to subcutaneous insulin, conversion from, 90
vertebral osteomyelitis, 75t, 76–7, 76f, 77f, 82
vildagliptin (Galvus), 107, 108t
VRIII, see variable rate intravenous insulin infusion (VRIII)
wound dressing, for diabetic foot ulcer, 150, 150f–151f
Xultophy, 108