Index

Note: Page numbers in italic indicate figures and those in boldface indicate tables.

‘ABC’ approach, 13
acquired immune deficiency syndrome (AIDS), 3–5, 10–12, 22. See also human immunodeficiency virus (HIV)
antiretroviral therapy (ART), 5, 212–13, 302.
See also antiretroviral drugs
cardiotoxic effects of, 312
for children, 75–7
antiretroviral agents, used in children, 76 and diabetes, 186
effect of, on HIV epidemic, 14
gastrointestinal disturbances, 113
for HIV-positive pregnant women, 41
and metabolic complications, 23–4, 176–7, 177. See also metabolic complications in HIV infection
and mitochondrial toxicity, 177, 178, 200, 250
anxiety disorders, in PLHIV, 334
management of, 335–6
and nutrition, 335
panic disorder, 335
PTSD, 334–5
symptoms and signs of, 334
appetite, loss of, 165
management of, 166
appetite stimulants, 122–3
Asian adults, 142
Avon Longitudinal Study of Parents and Children, 100
Bacillus Calmette-Guérin (BCG), 74, 390, 394, 494
Bacillus cereus food poisoning, 372–3
cancer, 442–3
definition of, 442
hallmarks of, 443
in HIV infection, 28, 447
Burkitt’s lymphoma, 449, 451
Hodgkin’s lymphoma, 451
Kaposi’s sarcoma, 447–8
lymphoma, 448
non-Hodgkin’s lymphoma (NHL), 449, 450
and nutrition, 451–2
nutritional assessment, 452
nutritional interventions, 452–3
nutrition and cancer management, developments in, 453–4
treatments, 444
chemotherapy, 445, 445–6
immunotherapy, 447
radiotherapy, 446, 446
surgery, 444–5
CVD, 23, 27, 70, 99, 134–5, 147, 150, 263, 278, 297, 460
body fat and, 88, 90, 201
CVD risk, 303
alcohol and, 185
ART, effect of, 91–2
assessment of, 179
calculation of, 180
investigation and management of, 181
in PLHIV, factors for, 179
exercise, effects of, 309, 312–13
and ITU admission in HIV-positive patients, 430
cassava, 286
cats claw (Uncaria tomentosa), 355
Caucasian adults, 142
cauliflower, 287
CD4 cells, measurement of, 8–9
CD4:CD8 ratio, 9
CD4 cell count, 9
CD4 percentage, 9
CD4 counts, and diarrhoea, 164–5
chewing, difficulty in, 166, 169
dietary modifications for, 170
children with HIV, 35–6. See also paediatric HIV infection
assessment and monitoring of, 94
care of. See adherence, in paediatric HIV care
dietary assessment of adolescents, 63
blood tests, 64
in first six months of life, 61–2
nutritional deficiencies, physical signs of, 66, 67
over five years of age, 63
over two years of age, 63
six months to two years of age, 62–3
dietary intake assessment of, 94
global nutritional assessment, 64–5
healthy eating, advice for, 94, 96
carbohydrates (starchy foods), 96, 98
feeding pattern for infants, 96
food groups and recommendations, 95
foods high in fats and sugar, 99
fruit and vegetables, 98
meal patterns and portion sizes, 97
meat, fish, eggs and beans, 98
micronutrients, 99–100
milk and dairy products, 98–9
nutritional assessment, methods for, 58–9
body mass index, 60
clinical signs, 59
growth, 59
growth charts, 60
head circumference, 59
height/length, 59
mid upper arm circumference, 60–61
waist circumference, 61
weight, 59
nutritional care of, in multidisciplinary team setting, 81–2
nutritional support in, 67–8
constipation, 69–70
diarrhoea, 69
energy, 68
faltering growth, 68–9
food intolerances, 69
gastrointestinal complications, 69
lipodystrophy syndrome, 70
malabsorption, 70
overweight and obesity, 70
protein, 68
vitamins and minerals, 68
cis-9-retinoic acid, 308–9
citrus fruits, 100
community gardens, 232
community interventions, in resource-limited settings, 212
breastfeeding and infant feeding support, 225–7
community form of supplementary feeding, example of, 228
community mobilisation, to support PLHIV, 234–6
HIV and nutrition, in resource-limited settings, 213–15
HIV-positive pregnant women, support for, 223–5
livelihood support and ensuring food access, 230–34
micronutrient supplementation programmes, 230
monitoring of, 236
needs and capacities, assessment of, 215–16
setting objectives, 217
nutrition counselling and education, 218, 220–21
other issues in
funding issues, 237–8
integrated links, 237
support for social protection, 237
severe acute malnutrition, treatment of, 229–30
support for other vulnerable groups, 227–9
targeted food supplementation programmes, 221–3
types of, 223, 224
targeting of nutrition programmes, 217–18
targeting criteria used, examples of, 219
community management of acute malnutrition (CMAM), 52–3
complementary and alternative therapy (CAT), 345
with ART drugs, safe use of, 353
dietary supplements
categories of, 350–51
use of, among PLHIV, 351–2
drug–CAT interactions, 353
herbal products, 356
with harmful effects, 349
use and interaction of, 354–5
patients' use of, concerns in, 356
safety and regulation of, 346
sources of information on, 349
type of, 345–6
use of, 346–7
disclosure of, 349
evidence for, 349–50
factors influencing, 347
in HIV, 347–8, 348
reasons for, 348
vitamins and minerals, potential toxicity of, 350–51
complementary feeding, 48–9
continuous renal replacement therapy (CRRT), 437
cryptosporidiosis, 160–61, 363
cytokine therapies, 125
cytomegalovirus (CMV), 161
cytoplasmic retinoic-acid binding protein type 1 (CRABP-1), 308–9
dairy products, 99
Data on Adverse Events of Anti-HIV Drugs (DAD) trial, 150, 180
dehydration, 149
delirium, 325
cause of, 325
and nutrition, 326
signs and symptoms of, 325
dementia, 326
and nutrition, 327
signs and symptoms of, 326
treatment for, 327
dental decay, 169
prevention of, dietary tips for, 169
dental erosions, 169
depression, in PLHIV, 327
antidepressant drugs, nutritional side effects of, 332
cause of, 327–8
effects of, 328
management of, 329
and nutrition, 328–9
signs and symptoms of, 328
diabetes, 23, 27, 176, 180, 183, 185, 276, 303, 399
diagnostic criteria for, 147
exercise, effects of, 309
in HIV population, 146–7
management, targets for, 187
medicines, use of, 187–8
and periodontal disease, 169
prevalence of, 186
and renal disease, 400
diarrhoea, 114, 159–60
assessment of, 160
acute diarrhoea, 160
chronic diarrhoea, 160
causes of, in PLHIV, 160–61
control and management of, 161
dietary modifications for, 162–3
fluid replacement, 162
medications for, 161–2
The Dietary Approaches to Stop Hypertension (DASH) diet, 197, 399
dietary history, 94, 151
dietary intake. See also healthy eating, in PLHIV
assessment of, methods of
computer analysis, 151
diet history, 151
food diaries, 151
reduction in, 111
contributing factors, 111
food insecurity, 112
neurological impairment, 112
personal beliefs, 112
physical impairment, 112
diet, healthy, practical advice for, 298
dual diagnosis, 340–41
dual energy X-ray absorptiometry (DEXA), 145, 190, 194
Durban technical consultation of 2005, 213
dyslipidaemia, 23, 91, 180, 181
management of, 92, 93, 180
dietary advice, 184–5
impact of dietary saturated fat intake, 182
lifestyle modifications, 183
lipid-lowering medication, 182
omega-3 fatty acids, 183
smoking, cessation of, 183
dysphagia, dietary interventions for, 167
end-of-life care, in HIV infection, 459–60
evaluation of EBM, 46–7
expressed breast milk (EBM), heat treatment of, 46–7
fat, 99
fat containing food examples of, 293
labels for, 294
nutrients in, 293
service users, suggestions for, 294
fatigue and tiredness, in PLHIV, 171, 173
effect of exercise on, 312
management of, 312–13
fat malabsorption, 112–13
fat redistribution syndrome. See lipodystrophy
feeds, preparation of, 47–8
ferritin, 147
fish, 290
depression treatment, 329
oily and white fish, examples of, 292
portions of oily fish, 292
fluid replacement guide, for PLHIV, 162
folic acid deficiency, 147
food- and waterborne illnesses
causes of
bacteria, 367–70
microorganisms, 362–3
parasites, 363–7
toxic chemicals, 371–3
viruses, 370–71
management and prevention of, 373
food and water safety guidelines, 374
guidelines for, in developed and developing countries, 374–8
information for food service providers, 380
recommendations for people with food-borne illness, 374
safe water, use of, 378–80
food and water safety, for PLHIV, 360. See also food- and waterborne illnesses
importance of, 360–61
food assistance programming, 217
food by prescription (FBP) programming, 394
food diary, 151
fibre, 285
insoluble fibre, 285
soluble fibre, 285
fat, 99
fat containing food examples of, 293
labels for, 294
nutrients in, 293
service users, suggestions for, 294
fatigue and tiredness, in PLHIV, 171, 173
effect of exercise on, 312
management of, 312–13
fat malabsorption, 112–13
fat redistribution syndrome. See lipodystrophy
feeds, preparation of, 47–8
ferritin, 147
fish, 290
depression treatment, 329
oily and white fish, examples of, 292
portions of oily fish, 292
fluid replacement guide, for PLHIV, 162
folic acid deficiency, 147
food- and waterborne illnesses
causes of
bacteria, 367–70
microorganisms, 362–3
parasites, 363–7
toxic chemicals, 371–3
viruses, 370–71
management and prevention of, 373
food and water safety guidelines, 374
guidelines for, in developed and developing countries, 374–8
information for food service providers, 380
recommendations for people with food-borne illness, 374
safe water, use of, 378–80
food and water safety, for PLHIV, 360. See also food- and waterborne illnesses
importance of, 360–61
food assistance programming, 217
food by prescription (FBP) programming, 394
food diary, 151
exercise
bicep curl, 315
definition of, 303
effects of
on immunological parameters, 305–6
metabolic disturbances, management of, 308–12
on quality of life and physical capacity, 312–13
on wasting, 306–8
endurance exercise, 303–4
hip flexor stretch, 315
in HIV, 152–3
overhead press, 315
programme for PLHIV, 316
case study on, 316–19
considerations for exercise prescription, 314–16
designing of, 313–14
pull ups, 315
resistance training, 303
seated rower, 316
sit-up on core stability bal, 316
food groups, nutrients of
fruits and vegetables, 285–6
examples of portions of, 289–90
meat, poultry, fish, eggs, pulses, nuts and seeds, 289
milk and dairy foods, 289
food poisoning and spoilage, difference between, 362
foods safety, pregnancy and, 41
The Food Standards Agency, 380
Food Standards Agency (FSA), 346
Framingham algorithm, 180
fruit and vegetables, 97, 98, 285–6
functional capacity, decrease in, 149
garlic, 127, 185, 354
gastrointestinal pathogens, 114
giardiasis, 161, 364–7
gingivitis, 168
Gingko biloba, 355
 glutathione, 311
goldenseal (Hydrastis canadensis), 355
Government’s Food Standards Agency, UK, 96
growth charts, 60
growth hormone, and HIV/AIDS wasting, 115, 124
hand washing procedure, 376
head circumference, measurement of, 59
healthy eating, in PLHIV
factors affecting
age, 278
ethnicity, 278
injecting drug use, 279–80
poverty and low income, 277
sexual orientation, 279
importance of, 276–7
and lifestyle factors for health benefits
alcohol use, 281
mental health, 280
physical activity, 280–81
smoking cessation, 281–2
portion sizes and quantity of food required, 295
practical tips for, 282
principles of, 282–4
eatwell plate, 282, 282–4
foods containing fat, 293–5
starchy foods, 283, 284–93
height
calculation of, equations for
from demispan, 488
from knee height, 488
measurement of, 138–9, 138–9
from ulna length, estimation of, 488–9
hepatic encephalopathy (HE), 416
nutritional management of, 419
hepatitis A, 370–71
Herbal Medicines Advisory Committee, UK, 346
highly active antiretroviral therapy (HAART), 23, 28, 127, 150, 243
HIV-associated nephropathy (HIVAN), 278, 396–7. See also renal failure, in PLHIV
HIV disease, 10
malnutrition and, 21–2
monitoring of, 12–13
non-AIDS conditions in, development of, 27
 cancers, 28
 liver disease, 28
 multi-organ failure and respiratory failure, 28–9
 renal disease, 27–8
 prevention of, 13–14
 progression of, factors for, 10
 staging and classification systems, 10–12
 CDC classification system, 11–12
 WHO Clinical Staging and Disease Classification System, 12, 475–6
 stigma of, 14–15
 symptoms. See symptoms of HIV infection untreated infection, and complications, 10–11
 HIV enteropathy, 161
 HIV test, 8
 human immunodeficiency virus (HIV), 3–4
 and CD4 cell count, 8–9
 diagnosis of, 8
 effect of, on infants and children, 24
 life cycle of, 7, 7–8
 and action mechanism of antiretroviral drugs, 244
 mortality rate, 5
 prevalence rate
 in UK, 5
 in USA, 5
 worldwide, 4
 structure of, 6–7
 transmission of, 5–6
 hypercholesterolaemia (HC), 91
 hypermetabolism, 113–15
 hyperphosphataemia, 405–6
 hypocaloric feeding, 435
 hypophosphataemia, 406–7
Immune Reconstitution Inflammatory Syndrome (IRIS), 28–9
infant feeding, 43
breastfeeding, 45
breastfeeding to replacement feeding, transition from, 48
and child nutritional status, 43
complementary feeding, 48–9
counselling and support for, 44–5
exclusive breastfeeding, 45–6
feeding options, 43
counselling for, 44
follow-up care for HIV-exposed infants, 49
preparation of feeds, 47–8
replacement feeding, 46
recommendation of, 44
types of, 46–7
infant formulas, 47
injecting drug users (IDUs), 279
insulin-like growth factor-1, and HIV/AIDS wasting, 115, 124
insulin resistance and exercise, association between, 310
integrase inhibitors, 245, 245, 267
integrated management of childhood illness (IMCI) approach, 53
intensive therapy unit (ITU) admissions, in HIV-positive patients, 427
medical treatment, considerations in drug hypersensitivity, 431
drug interactions, 431
immune reconstitution inflammatory syndrome, 431
nutritional assessment, 433
and nutritional considerations
energy prediction equations, 432
malabsorption, 432
medication affecting energy expenditure, 433
metabolic response to stress, 432
non-nutritional energy sources, 433
weight, 431–2
nutritional interventions, 438
choice of feed, 438
enteral feeding protocols, use of, 438–9
feeding route, 438
nutritional problems in, 428
nutritional requirements carbohydrate and fat, 436
in cardiovascular failure, 436
energy, 433–5
in GI failure, 437
in liver failure, 437
in neurological failure, 436–7
nitrogen requirements, 435–6
in renal failure, 437
in respiratory failure, 436
vitamin and mineral requirements, 437–8
reasons for, 427–8
bacterial pneumonia (BP), 429
cardiovascular failure, 430
gastrointestinal failure, 430
liver failure, 430
neurological failure, 430
pneumocystis pneumonia (PCP), 428–9
renal failure, 431
respiratory failure, 428–9
sepsis and multiple organ dysfunction syndrome, 430
The International Diabetes Federation, 186
International Obesity Task Force (IOTF), 90
intestinal absorption, abnormalities of, 113–14
intra-dialytic parenteral nutrition (IDPN), 403
Ireton-Jones Energy Equations (IJEE), 434, 434
iron supplementation in HIV infection, 38
negative effect of, 127
in renal failure, 408–9
Kaletra®, 79–80
lactic acidosis, 199
lactose intolerance, in Black African population, 69
lean body mass (LBM), 108–9, 114, 123–4, 137, 185, 201, 306–7, 393
leptin, 191–2, 390–91
linkage trust, Zimbabwe, 221
lipid profile, 146
of HIV-infected children, 91
lipodystrophy, 23, 61, 64, 70, 108, 114, 119, 133–4, 149, 178, 250–51, 303, 308
body weight and, 138
and dietary interventions, 92
dyslipidaemia in, 91
management of, 92, 93
prevalence in children, 91
lipo hypertrophy, 133, 177, 188, 432
role of diet in treatment of, 192
lipoprotein lipase enzyme, 311
liquorice root, 423
listeriosis, 369–70
liver disease, in PLHIV, 28, 412
acute liver disease, 412
CAT, use of, 422
liver disease, in PLHIV (cont.)
   herbal supplements, 422–3
   micronutrient supplements, 422
chronic liver disease, 412
   causes of, 412
   cirrhosis, 412
HBV/HCV infection
   transmission routes of, 413
   treatment of, side effects of, 414–15
hepatitis B (HBV), 413–14
hepatitis C (HCV), 414
liver transplantation, 420
and nutrition, 415
   ascites, 416
   eating patterns and carbohydrate snacks, 420
   energy and protein requirements, 417–18
   hepatic encephalopathy, 416, 419
   No Added Salt’ diet, 419
   nutritional assessment, 415–16
   nutritional requirements and supports, 416
nutritional interventions for HCV, 420
   alcohol intake, abstinence from, 421
   dietary restriction programme, 421
   vitamins and minerals, 420
vulnerable groups, 423–4
The Living Well manual, 220
low glycaemic index (GI) diets, 184
malnutrition, 215
   in children with HIV, 49
   chronic, 50
   maternal and child undernutrition, 49
   severe acute. See severe acute malnutrition (SAM)
in HIV patients, factors for, 22
   and infections, 19–21
malnutrition universal screening tool (MUST), 136, 392
   mandarins, 288
   mangoes, 288
   mania, 333
   mood stabilisers, nutritional side effects of, 334
   and nutrition, 333–4
   symptoms of, 333
maternal nutrition, during pregnancy, 36–7
maternal undernutrition
   effects on child, 24–5
Medicines and Healthcare Products Agency (MHPA), UK, 346
Mediterranean-style diet, 184
megestrol acetate, 122–3
Mental Capacity Act (MCA) 2005, 465–6
mental health disorders
   acute cognitive impairment, 325
   management of, 326
   anticonvulsant and HIV medications,
      interactions between, 330
   antipsychotic neuroleptic and HIV medications, interactions between, 331
   anxiety disorders, 334
   management of, 335–6
   and nutrition, 335
   panic disorder, 335
   PTSD, 334–5
chronic cognitive impairment, 326–7
   and nutrition, 327
   signs and symptoms of, 326
and decline in nutritional status, 324–5
   depression, 327–8
   management of, 329, 332
   and nutrition, 328–9
   in HIV-infected patients, 324
   mania, 333
   and nutrition, 333–4
   nutritional management in, 341
   nutritional problems, socio-economic factors for, 339–40
   psychosis, 336–7
   management of, 337–9, 338
   and nutrition, 337
   suicidal ideation, 332–3
   management of, 333
men who have sex with men (MSM), 279
metabolic complications in HIV infection, 176–7, 276
bone disorders
   aetiology of, 193
   bisphosphonates, use of, 198
   fracture risk, 194
   and nutritional management, 194–8
   prevalence of, 193
   risk factors for, 194
   cardiovascular disease risk assessment of, 179
   calculation of, 180
   factors for consideration in annual assessments, 179
   in PLHIV, factors for, 179
   diet and lifestyle modification for treatment of, 200–201
dyslipidaemia, management of, 180, 181
dietary advice, 184–5
exercise, 183
impact of dietary saturated fat intake, 182
lifestyle modifications, 183
lipid-lowering medication, 182
omega-3 fatty acids, 183
smoking, cessation of, 183
effect of exercise on, 308–12
fat redistribution
aetiology of, 188
development of, risk factors for, 188
monitoring for, 190
prevalence of, 189–90
treatment of, 190–93
impaired glucose metabolism
aetiology of, 185–6
monitoring and treatment of, 186–8, 187
prevalence of, 186
interventions effect on metabolic changes, 204–5
lactic acidosis, management of, 199
metabolic side effects by ART, 177
cause of, 177–8
effect of individual antiretrovirals on metabolism, 202–3
prevalence of, 178
peripheral neuropathy, 199–200
routine assessment of, 200
metabolic disorders, in HIV-infected individuals, 23–4
micronutrients
in breast milk, 37–8
deficiencies in HIV infection, 37, 88, 125
causes of, 125
interventions
benefits of, 125–6
and HIV medications, 127
minerals, 100
requirement in pregnancy, 37
supplementation, 127–8
negative effects of, 126–7
in pregnancy, 38
in TB/HIV coinfection, 393
vitamins, 99–100
microorganisms, 362–3
microsporidiosis, 161
mid-arm muscle circumference (MAMC), 491
estimation of, 142, 144
mid-upper arm circumference (MUAC), 60, 142, 144, 490
for assessment of body mass, 60–61
for identifying SAM in children, 53
measurements of, 39
milk, 98
milk thistle, 354, 422–3
minerals and vitamin supplements, for PLHIV, 295
mitochondrial toxicity, HIV therapy and, 177, 178, 200, 250
Montgomery-Asberg Depression Rating Scale (MADRS), 313
mother to child HIV transmission (MTCT), 13, 35, 41
ART therapy, for prevention of, 41
prevention of, 42, 73
reduction of, 41–2
role of micronutrient supplementation in, 42
muscle mass, measurements of, 142, 144
mycobacterium avium complex (MAC), 161
nandrolone decanoate (ND), 123, 124
nasogastric (NG) tube, 121
National Cholesterol Education Programme (NCEP) guidelines, 92
National Diet and Nutrition Survey, UK, 100
National Institute for Health and Clinical Excellence (NICE), UK, 93, 136, 388
guidelines, 482–3
nausea and vomiting, 171
management strategies for control of, 172–3
NICE-SUGAR study, 436
nitrogen requirements, estimation of, 484
non-alcoholic fatty liver disease (NAFLD) and HIV, 421–2
non-communicable diseases (NCDs), 275
non-nucleoside reverse transcriptase inhibitors (NNRTIs), 76, 91, 245, 247, 253. See also antiretroviral drugs
non-protein energy (NPE) sources, 433
nucleoside reverse transcriptase inhibitors (NRTIs), 76, 245, 247. See also antiretroviral drugs
nutritional assessment, 136
anthropometric measurements, 137
adiposity, measurements of, 139–42
body composition, estimates of, 145
body weight, 137–8
height, 138–9
muscle mass, measurements of, 142, 144
biochemical assessment, 146
CD4 count and viral load, 148
ferritin, 147
folate, 147
glucose, 146–7
lipid profile, 146
serum albumin, 146
testosterone, 148
nutritional assessment (cont.)
  vitamin B12, 147
  vitamin D, 147
clinical assessment, 148
  appetite, 150
  co-morbid conditions, 150
  increased nutritional requirements, 150
  physical appearance, 148–9
  physical symptoms, 149
dietary and lifestyle assessment, 150–51
  alcohol consumption, 152
  exercise, 152–3
  food and water safety, 152
  methods for, 151
  social and environmental factors, 152
  supplements and herbal remedies, use of, 152
importance of, 22
nutritional counselling, 40, 120–21
nutritional management, 117–18
  after HIV-positive diagnosis, 118
  of patients with decreased nutritional status
  aim of, 118–19
  nutritional assessment, 119
  nutritional counselling, 120–21
  nutritional support, approach to, 120
  oral nutritional supplements, 120–21
  parenteral nutrition, 121–2
  tube feeding, 121
  in weight loss, 119–20
  weight-stable individuals, 118
  nutritional supplementation for, 118
nutritional requirements
  energy requirement, 116
  protein requirement, 116–17
nutritional screening, 134–5, 158
  frequency of screening, 136
  importance of, 22, 134
  measurements included in, 135
  screening tools, 135
  MUST, 136
  self-administered symptom screening tool, 159
nutrition and HIV, 18–19
  end-of-life care, 29
  HIV and malnutrition, impact of, 21–2
  importance of, 26–7
  infant feeding and HIV transmission, 25
  malnutrition and infectious diseases, 19–20
  maternal health and lactation, 25
  maternal undernutrition, effect on child, 24–5
  metabolic and morphological complications, 23–4
  non-AIDS conditions, management of, 27
  cancers, 28
  liver disease, 28
  multi-organ failure and respiratory failure, 28–9
  renal disease, 27–8
  nutritional status, screening and assessment of, 22
  nutrition education, 220–21
  in home-based care (HBC), 220
  Nutrition for Healthy Living study (NFHL), 108–9
  nutrition gardens, 221
  nutrition tools, 220
  nuts, 292
obesity
  BMI for diagnosis of, 90
  cause of, 91
  definition of, 90
  and NAFLD, 413
  prevalence of, 90–91
  prevention and treatment of, 93
  oesophageal candidiasis, 165
  omega 3 fatty acids, 92, 183–4, 329
  omega 9 fatty acid, 92
  omelette, vegetable, 291
  opportunistic infections (OIs), 20–21
  oral candidiasis, 165
  oral nutritional supplements (ONS), 120–21
  oral rehydration solution (ORS), 162
  oral sip feeds, 120
  overfeeding, 434–5
  oxandrolone, 123–4
paediatric HIV infection, 24–5. See also
  children with HIV
  antiretroviral treatment, 75–7, 87–8
  caring for children and families, in community, 77–8
  clinical presentation of, 73
  and encephalopathy, 74
  and gastrointestinal infections, 73–4
  and lipodystrophy, 91–3
  malnutrition and, 88
  and metabolic complications, 88
  micronutrients and, 88
  vitamin A, 89
  vitamin D, 89
  monitoring of
  disease progression, 77
laboratory, 77
viral load, 77
and obesity, 90–91, 93
older children, infections in, 74
transmission of, 72–3
and opportunistic infections, 74
pharmacological interventions, for lipid lowering, 93–4
prophylaxis for, 74
psychological effects on family functioning, 84–5
clinical psychologists, role of, 82–3
vertical transmission of, 72–3
prevention of, 73
parasites, infecting PLHIV
Cryptosporidium parvum, 363
Cyclospora cayetanensis, 367
Giardia lamblia, 364–6
Toxoplasma gondii, 364
parenteral fluids, 162
parenteral nutrition (PN), 121–2
people living with HIV (PLHIV), 18
percutaneous endoscopic gastrostomy (PEG), 120, 464
periodontal disease, 168–9
peripheral neuropathy (PN), 199–200
personality disorders, 340
pharmacokinetic mechanisms in children, 75
absorption, 75
distribution, 75
excretion, 76
metabolism, 75–6
pharmacological interventions, of weight loss and wasting, 122
anabolic steroids, 123
testosterone, 123–4
appetite stimulants, 122–3
cytokine treatments, 125
growth hormone, 124
insulin-like growth factor-1, 124–5
results and side effects of, 123
phosphate binder, 406
phosphorus and bone health, 196–7
control, in renal failure, 404–7
physical activity
definition of, 303
participation and health status, observational studies on, 304–5
PI monotherapy, 267
plantains, 287
plant stanol/sterols, 184
Pneumocystis jiroveci, 73
point of care test (POCT), 8
polyunsaturated fatty acids, 92
post-exposure prophylaxis for sexual exposure (PEPSE), 14
post-traumatic stress disorder (PTSD), 334–5
potassium, 197
pounded yam, 285
pregnancy
foods avoided in, 41
heartburn in, management of, 40
HIV-positive women, nutritional status of, 37–8
and HIV symptoms, management of, 40
management of HIV infection in, 42
maternal nutritional assessment in, 39–40
anaemia, 39
body weight monitoring, 39
MUAC, measurements of, 39
oedema and malnutrition, 39
maternal nutrition in, 36–7
diagnosis of, 40
micronutrients requirements in, 37
micronutrient supplementation in, 38
nutritional counselling, importance of, 40
weight gain in, 37
prevention of mother to child transmission (PMTCT) programmes, 24, 35, 42, 224
protease inhibitors (PIs), 76, 91, 245, 245–6, 247, 253. See also antiretroviral drugs
protein energy malnutrition (PEM), 88, 415
in chronic liver disease, 415
proteins, 98
pulses, 290
QRISK2 algorithm, for calculating CVD risk, 180
raspberries, 288
ration, for HIV people, 222–3
ready-to-use therapeutic food (RUTF), 52, 120
Reference Nutrient Intake (RNI)
for calcium, 196
for phosphorus, 197
for potassium, 197
for vitamin D, 195–6
reflux, 170
nutritional management for, 170
renewal disease, and HIV infection, 27–8
renal failure, in PLHIV
acute renal failure (ARF), 396
causes of, 396–7
chronic renal failure (CRF), 396
classification of, 397–8
renal failure, in PLHIV (cont.)
diagnosis of, 397
dialysis, and nutritional issues, 402
features of, 397
HIVAN as cause of, 396–7
nutritional assessment, 402–3
nutritional considerations for
CKD stage 1-3, 399–400
CKD stage 4, 400, 401
CKD stage 5, 400, 401
nutritional requirements for people with, 403
renal replacement therapy, methods of
haemodialysis, 398
peritoneal dialysis, 398–9
renal transplantation, 399
screening for PLHIV, 397
treatment for
enteral feeding, 407
nutrition support, 403–4
parenteral feeding, 407
potassium control, 404–7
transplantation, 407–8
vitamins and minerals, 408–9
water-soluble vitamin use, 409
replacement feeding
advantage of, 46
definition of, 46
problems associated with, 46
recommendations of, 44
types of
heat-treated expressed breast milk, 46–7
infant formulas, 47
modified animal milk, 47
wet nursing, 47
resistance exercise training, 122, 123
respiratory tract infection, in children, 73
resting energy expenditure (REE), 113–15
salmonellosis, 367–8
salmon steaks, 290
salt, 184, 294
use of, suggestions for, 294
saturated fat, 92
saturated fatty acids, 184
schizophrenia (psychosis), 336
acute phase of, 336
chronic phase of, 336–7
extrapyramidal side effects, of antipsychotic medications, 339
management of, 337
and nutrition, 337
psychotropic drugs, nutritional side effects of, 338
symptoms, effects on diet, 338
Schofield Equation, 433, 434
SCORE system, 180
serotonin reuptake inhibitors (SSRIs), 328–9
serum albumin, 146
Service Level Agreement (SLA), 313
severe acute malnutrition (SAM), 49–50
classification of, 50
community management of, 52–3
issues in, 53–4
and HIV
clinical presentation of, 50–51
mortality in, 51
prevalence of, 50
research recommendations for, 54
identification of, 53
management of, 51, 52
health worker, role of, 53
treatment of, 229–30
sip feeds, 82
skinfold measurements, 141–2, 142, 143
SMART study, 255
smoking, 26, 150, 169, 170, 180, 183, 201, 281
sore mouth, dietary interventions for, 167
starchy foods, 284
amount to be consumed, 284–5
fibre, 285
statins, use of, 94, 182
steatorrhoea, 419
dietary treatment of, 419
St John’s wort, 127, 353, 354
stunting, 50
subjective global assessment (SGA), 402
sub-Saharan Africa, 214
HIV infections in children in, 36
HIV prevalence in, 4, 35
maternal undernutrition in, 36
subscap skinfold thickness, 142, 143
sugars, 96, 98
suicide, 332–3
suprailiac skinfold thickness, 142, 143
sustained viral response (SVR), 414
sutherlandia, 354
symptoms of HIV infection, 157–8
diarrhoea, 159–61
control and management of, 161–4
dietary management of, 159
dry mouth and dental problems
  assessment and management of, 168–70
fatigue
  causes of, 171, 173
  strategies for management of, 173
loss of appetite, 165
  control and management of, 166
nausea and vomiting, 171
  dietary management for, goals of, 171
  management strategies for control of, 172–3
painful mouth, dysphagia and taste changes, 165–6
  dietary interventions for PLHIV, 167, 168
  dietary management for, goals of, 166
reflux (heartburn), 170
  nutritional management for, 170
self-administered symptom screening tool, example, 159
taste changes, dietary interventions for, 167
TB/HIV coinfection
  future research, directions for, 394
malnutrition in, 390
  biological factors for, 391–2
  social factors for, 391
micronutrient deficiencies in, 391
  nutritional status and, 390
  nutritional treatment, 393
  in resource-poor settings, 394
  supplements, 393
nutrition assessment, 392
  micronutrient status, 392
  symptom identification, 392
nutrition screening, 392
TB medication, adherence to, 493
tesamorelin, 191
testosterone
  and exercise, 307
  and HIV/AIDS wasting, 115, 123–4, 148
The Portfolio Diet, 185
tomatoes, 287
total energy expenditure (TEE), 114
toxoplasmosis, 364
trace elements, 100
tricep skinfold (TSF) measurements, 61
  thickness, 142, 143
tuberculin skin test, 394
tuberculosis (TB), 385–6
  causative organism, 385–6
  chest X-ray, 387
  diagnosis of, 386
epidemiology of, 386–7
  and HIV, relationship between, 387–8
  prevention of, 390
  resistance, 389–90
  extensively drug resistant TB (XDR-TB), 390
  multi-drug resistant TB (MDR-TB), 390
  transmission of, 386
  treatment, 388–9
tumour necrosis factor, and HIV/AIDS wasting, 115, 125
UK
  breastfeeding avoidance, by WLHIV, 44
  childhood obesity, data on, 90–91
  cow’s milk, for infants, 47
  dietetic annual assessment form, 64–5, 65–6
  HIV prevalence in, 5
  infant formula milk, 46
  MUST, 136
  symptoms experienced by PLHIV in, 158
  UK health departments recommendations on micronutrient supplementation, 38
  ulna length, measurement of, 139, 140
USA, HIV prevalence in, 5
vegetable production project, Zimbabwe, 234
vegetables, raw, 287
ventilatory threshold, 311
viral load test, 9–10
vitamin A
  and bone health, 197
  supplementation in children, 89
  in pregnancy, 38
vitamin B12 deficiency, 147
vitamin C, 100
vitamin D
  and bone health, 195–6
vitamins
  fat-soluble vitamins, 99
  water-soluble vitamins, 100
vitamin K, 197
waist circumference, 141, 141
measurement of, 61
wasting in HIV, 22
water safety, guidelines for, 379
boiling, 379
chemical disinfection, 379
filter, 380
storage in clean containers, 380
weight
change in, HIV infection and, 137–8
gain in, and antidepressant treatment, 329
guidance table to identity target weight, 479
measurement of, 137
Weight-for-Height Reference Card, 477
Weight-for-Length Reference Card, 478
weight loss and wasting, 107–8
ART and, 108–9
causes of, 110–11
hypermetabolism, 113–15
malabsorption, 112–13
reduced food intake, 111–12
definitions of, 109–10
non-nutritional treatments for, 122
pharmacological interventions, 122–5
nutritional interventions for. See nutritional management
prevalence of, 110
significance of, 108
weight management for PLHIV, 295
assessment for, 293
dietary advice, 296–7
physical activity for, 297–8
weight reducing interventions, 296
Wernicke-Korsakoff syndrome, 326
West African people, weight reducing dietary advice for, 297
wet nursing, 47
WHO
Clinical Staging of HIV/AIDS for Adults and Adolescents, 475–6
five keys to safer food, 374, 375
growth charts, 60
guidelines on ART for HIV-positive pregnant women, 41
women living with HIV (WLHIV)
energy and protein requirements for, 38–9
micronutrient supplementation for, 38
Women’s Interagency HIV Study, 178
xerostomia, 168
yams, fresh, 286
Zidovudine (AZT), 13, 73
zinc, 100, 101, 127, 422