Index

Page numbers in italic refer to figures; those in bold to tables; those underlined to definitions

abandonment, 355, 357. see also elder abuse and neglect
ABC. see airway, breathing, and circulation
abdominal aortic aneurysm (AAA)
   abdominal pain, 83, 85–87, 89, 92–93
   back pain, 111, 112, 118
abdominal pain, nonsurgical, 99, 103, 106–107
   assessment, 103–107
   decision-making, 107–108
   discussion/differential diagnoses, 99–105, 107
   management and treatment, 107
abdominal pain, surgical causes, 83, 88–89
   assessment, 89–95
   decision-making, 95–96
   discussion/differential diagnoses, 83–88, 94, 95, 99–101
   indications for surgery, 304, 305
   management and treatment, 86, 94, 95
   see also surgery (abdominal)
absorption, medication pharmacokinetics, 47
abuse and neglect. see elder abuse and neglect
ACA (Affordable Care Act), 401, 402
acceptance of death, 74, 220
accountable care organization (ACO), 402
ACE. see angiotensin converting enzyme
ACEP. see American College of Emergency Physicians
acetaminophen (APAP), 114, 365–367, 375
acetylcholine, changes with aging, 22
acid phosphatase test, 112
ACO (accountable care organization), 402
activities of daily living (ADLs)
   falls, 267
   functional assessment, 30, 33–37
   general assessment, 1, 9–11, 412–413
   pain management, 363, 369
   rib fractures, 295
   stroke, 212
   weakness and functional decline, 258, 260
   acute abdomen, 95, 306, 307. see also surgery
      (abdominal)
   acute coronary syndrome (ACS), 152, 168, 169, 171–175, 185, 193
   biomarkers, 175
   chest pain, 152, 155–158
   dyspnea, 140, 145–146
   management and treatment, 175–177
   prognosis, 143, 145
   weakness and functional decline, 253
   see also cardiac ischemia; heart failure;
      non-ST segment elevation myocardial
      infarction; ST-segment elevation myocardial
      infarctions
   acute heart failure syndromes (AHFS), 182–186
   acute myelogenous leukemia (AML), 328, 339, 340, 340, 342–343
   acute myocardial infarction (AMI), 174–175. see also
      myocardial infarction
   Acute Physiology and Chronic Health Examination II, 105
   acute vestibular syndrome (AVS), 240, 242–244, 246–248
   addiction, 370. see also substance abuse
   ADH. see antidiuretic hormone
   ADLs. see activities of daily living
   adrenal failure, oncology, 331
   advanced trauma life support (ATLS), 286.
      see also trauma
   adverse drug reactions (ADRs), 7, 48–50, 50, 55.
      see also Beers criteria;
      pharmacological issues
   adverse drug-related events (ADREs), 48–50
   advocacy, patient, 6. see also patient wishes
   AF. see atrial fibrillation
   Affordable Care Act (ACA), 401, 402
   ageism, 370
aggressive management, 2, 3, 6
abdominal pain, 85, 87, 93, 102
altered mental status, 63
back pain, 114
cardiac disease, 168–173, 176–178, 184, 185
dizziness and vertigo, 237
dyspnea, 142, 145, 150
elder abuse, 352, 354
end-of-life care, 386, 387, 391, 392
falls, 30, 265, 270, 276
headache, 126
infection, 219–226, 229
oncology, 327, 328, 337
stroke, 204–206, 208–210
surgery, 313, 318
syncope, 192, 198
trauma, 276, 282, 286, 289, 292–293, 294, 297
aging, and health, 17, 24, 395–396. see also physiologic changes; reserve (loss of)
agitation, psychiatric emergencies, 78
AGS (American Geriatric Society), 7, 408, 410
AHFS (acute heart failure syndromes), 182–186
airway, breathing, and circulation assessment, 6
dyspnea, 139
oncology, 331–332
surgical issues, 313
albumin, serum, 29
alcohol consumption, 75
falls, 276
headaches, 134
psychiatric emergencies, 77–78
aldosterone, changes with aging, 25
alpha agonists/alpha blockers, 45, 52, 53
altered mental status (AMS), 58–59, 63–64, 71
abdominal pain, nonsurgical, 103
assessment, 3, 4, 9, 37, 64, 65, 67
cardiocirculatory and pulmonary problems, 66–67, 174
changes with aging, 22
decision-making, 68
discussion/differential diagnoses, 59–64
dyspnea, 139, 150
indications for surgery, 311, 313
infection, 60, 61, 64–65, 105, 219, 221, 222, 229
management and treatment, 62, 67–68
metabolic disorders, 65
neurologic disease, 65–66
pharmacological issues, 44, 66
postoperative, 317
trauma, 280, 283
weakness and functional decline, 258
see also psychiatric emergencies
Alzheimer’s disease, 75
American College of Emergency Physicians (ACEP), 407, 410, 412
American Geriatric Society (AGS), 7, 408, 410
American Medical Association (AMA), 318, 358
American Society of Anesthesiologists (ASA), 315, 315–316
AML. see acute myelogenous leukemia
AMS. see altered mental status
analgesia. see pain management
anemia
dizziness and vertigo, 235
falls, 275
fatigue, 169
heart failure, 182
oncology, 334–335, 335, 336
syncope, 193–194, 198–199
angina, 153, 172, 173, 185. see also acute coronary syndrome
angiotensin-converting-enzyme (ACE), 31
angiotensin-converting-enzyme (ACE) inhibitors, 88, 184
anterocerebral artery (ACA) infarction, 209
anterograde amnesia, dementia, 75, 76
antibiotics, 3, 4, 51, 218, 221–223, 225–229
abdominal pain, 105–107
back pain, 118, 119
drug interactions, 404
dyspnea, 142–145, 148
oncology, 321–323, 327, 328, 343
pain management, 387, 388
surgery, 307, 312, 317
anticholinergic medications, 44, 48, 50, 66, 367
anticoagulation therapy
abdominal pain, 88
altered mental status, 65–66
atrial fibrillation, 178–179
dizziness and vertigo, 236–237
indications for surgery, 307
pharmacological issues, 51–52, 53
pulmonary embolism, 162
surgery, 314–315
trauma, 282
see also antiplatelet agents; warfarin
antidepressants, 52–53, 54, 276. see also selective serotonin reuptake inhibitors; tricyclic antidepressants
antidiuretic hormone (ADH), 330. see also syndrome of inappropriate antidiuretic hormone
antidysrhythmics, Beers criteria, 52
antihistamines, 66, 276
antiparkinson agents, adverse drug reactions, 50
antiplatelet agents, 50, 88, 124, 131, 159, 282, 294. see also anticoagulation therapy; clopidogrel
antipsychotics, 52–53, 54, 198, 276
antispasmodics, adverse drug reactions, 50
anxiety, psychiatric emergencies, 71–74
aortic aneurysm, 192. see also abdominal aortic aneurysm
aortic dissection (AD), 116, 153–159
APAP (acetaminophen), 114, 365–367, 375
apixaban, 180
appendectomy, acute chest pain, 152
appendicitis, abdominal pain, 84–85, 89
ARISTOTLE trial, 180
ASA. see American Society of Anesthesiologists
ASB (asymptomatic bacteriuria), 105
aspiration pneumonia, 64, 226, 227
aspirin, 43, 44, 173
altered mental status, 63
cardiac disease, acute, 176
dizziness and vertigo, 236
headache, 124
stroke, 52, 180
toxicity, 44, 66, 142, 144
assessment, general, 1
  cognitive evaluation, 6, 8–9
  choosing wisely movement, 29–30
  decision-making, 10–11
  discussion/differential diagnoses, 1–6
  expectations management, 10
  history-taking, 6–7
  laboratory studies, 8
  medical evaluation, 6
  social evaluation, 6, 10
  vital signs, 1–2, 7–8
see also functional assessment and see specific conditions
assessment instruments
  case study, 412–413, 412
  elder abuse, 358–359
  end-of-life care, 392
  functional assessment, 36–37
  pain management, 365, 369, 371–373, 373
  see also specific instruments by name
Assessment of Generalized Weakness (North American Clinics of Geriatric Medicine), 255
assisted living, 1, 74, 353–356, 395, 396
asthma, 149
asymptomatic bacteriuria (ASB), 105
atherosclerosis, 170, 173
  changes with aging, 20
dizziness and vertigo, 237
stroke, 203
ATLS (advanced trauma life support), 286. see also trauma
atorvastatin, 43, 172
atrial fibrillation (AF), 17, 173, 177–182, 185
  abdominal pain, 86, 88
  altered mental status, 58
  anticoagulation therapy, 51–52
dyspnea, 147–148
  pharmacological issues, 282
  stroke risk, 178, 178–179, 179
atrial pacemaker cells, 7, 17
atrioventricular blocks, 17
atropine, 17
attentional system, 18, 75
ATTEST mnemonic, 240, 240, 242, 246, 249
atypical presentations, elderly patients, 21, 115, 197, 267, 311, 318, 409, 411
  infection, 18, 317
  cardiac problems, 88, 99, 100, 106, 145, 154, 163, 177
AVS (acute vestibular syndrome), 240, 242–244, 246–248
back pain, 110, 115–116
  decision-making, 120
  discussion/differential diagnoses, 110–115
  infectious, 117–119
  malignant spinal cord compression, 119–120
  prognosis, 119
  vascular, 116–117
BAFTA (warfarin versus aspirin for stroke prevention) study, 52
balance performance test, functional assessment, 35
balance problems, 10, 23, 364
Barthel Index, activities of daily living, 34
Basel Nonspecific Complaints (BANC) study, 257–258
basilar artery occlusion, 210
Beers criteria for potentially inappropriate medication use, 7
  adverse drug reactions, 7, 49, 50–54
  geriatric emergency department case study, 413
  headache, 126
  pain medication, 374
benign positional vertigo (BPV), 234, 241, 244–245, 248–249
benzodiazepines, 54, 59, 66, 77, 267, 276
Berg balance scale, 273
INDEX

beta-adrenergic receptors, 20
beta-blockers, 2, 173, 304
abdominal pain, 100
acute chest pain, 155–156
atrial fibrillation, 180
congestive heart failure, 147
general assessment, 8
indications for surgery, 307
pharmacological issues, 44–45, 51, 193
surgery, 314
bile-duct-stone-associated pancreatitis, 104
biliary disease, 89–90
biomarkers
  cardiac, 173–175, 178, 183
  inflammation, 145
  trauma, 285
biopsychosocial model of medical care, 6
BIPAP (bilevel positive airway pressure), 141, 142, 144
bipolar disorder, 78
blood glucose. see glycemic control
blood pressure
  abdominal pain, 83, 92, 94, 99, 107
  acute cardiac disease, 177, 180, 184
  acute chest pain, 161
  altered mental status, 58
  back pain, 110
  changes with aging, 24
  dizziness and vertigo, 234
dyspnea, 144, 147
falls, 30, 264, 267
general assessment, 2, 7
headache, 123, 127, 134
infection, 218–220, 225
orthostatic hypotension, 7, 20, 48, 276
pharmacological issues, 44–46, 48–51, 53
surgery, 304
syncope, 192, 193, 195, 197
  see also vital signs
BNP (brain natriuretic peptide), 183
body mass index (BMI), 36, 259
body temperature
  and abdominal pain, 83, 99
  altered mental status, 99
  back pain, 110
  general assessment, 8
  see also vital signs
bone, changes with aging, 19, 23, 25, 332. see also fractures
Boston Syncope Criteria, 200
bowel obstruction, 90–92, 308
BPI (Brief Pain Inventory), 373, 413
BPV. see benign positional vertigo
bradycardia. see heart rate
brain
  cerebellar infarction, 210, 241
  cerebral hemorrhage, 124, 208–209, 283, 284
  cerebral venous sinus thrombosis, 124, 125, 127, 133
  changes with aging, 18, 22, 272
  see also altered mental status; central nervous system;
cognition; dementia
brain natriuretic peptide (BNP), 183
brain tumors, secondary headaches, 124, 130–131
breast cancer, 113
breathing. see airway, breathing, and circulation;
respiratory system
Brief Alzheimer’s Screen, 412, 413
Brief Pain Inventory (BPI), 373, 413
‘brown bag’ checkups, 50
CABG (coronary artery bypass grafting), 176, 177
CAD. see coronary artery disease
Cairo–Bishop classification, tumor lysis syndrome, 328
calcium channel blockers, 2, 8, 51, 52, 180, 314
calcium metabolism
  altered mental status, 65
  back pain, 113
  oncology, 328–330, 329
  see also electrolyte abnormalities
Canadian C-spine rule, 294
Canadian oncologic practice, 322–325
Canadian Study of Health and Aging (CSHA-1), 9
cancer. see oncology
CAP (community-acquired pneumonia), 226, 321, 322
cardiac catheterization, 32, 102, 172, 252–254
cardiac disease, acute, 153, 168, 185
decision-making, 171, 185–186
discussion/differential diagnoses, 168–173
prognosis, 177, 178, 184
  see also acute coronary syndrome; atrial fibrillation;
  heart failure; ischemic heart disease
cardiac function, changes with aging, 19, 177–178
cardiac reserve, 177
Cardiovascular Health Study Collaborative Research
  Group, 258
cardiovascular system
  altered mental status, 66–67
  changes with aging, 7, 17, 18, 19–20, 272, 309
  pharmacological issues, 48, 51, 52, 53
care transitions, 394–395, 401–405
discussion/differential diagnoses, 395–401
goals of care, 396, 402
Care Transitions Intervention, 401
caregiver burden, 71, 73. see also family support
carotid dissection, 124, 125, 130, 131, 209, 242
cartilage, changes with aging, 19, 23
catheter ablation, atrial fibrillation, 181
CBC. see complete blood count
CCTPs (community-based care transitions programs), 402
cellulitis, 228
central nervous system
  altered mental status, 65–66
  changes with aging, 18, 22, 310
  infection, 229
  oncology, 343, 343
  see also altered mental status; brain; cognition; dementia
cerebellar infarction, 210, 241
cerebral hemorrhage, 124, 208–209, 283, 284
cerebral venous sinus thrombosis, 124, 125, 127, 133
cerebrospinal fluid (CSF) leak, headache, 125, 127
cerebrovascular accident (CVA). see stroke
cervical artery dissection, 131, 209
  cervical spine injuries, 294–295
cerebrogenic headache, 134
CHA2DS2 scoring system, stroke risk, 178, 181
CHA2DS2-VASc scoring system, 178, 179, 179, 181
chair stand test, functional assessment, 35
changes with aging. see physiologic changes with aging
chest pain, acute, 152, 157
  aortic dissection, 158–160
  assessment instruments/scoring systems, 161, 164
  cardiac disease, 157–158, 163, 168
decision-making, 163–164
discussion/differential diagnoses, 152–157
gastroesophageal reflux disease, 163
herpes zoster, 162–163
pneumothorax, 160
  pulmonary embolism, 160–162
chest X-ray
  abdominal pain, 101
  acute chest pain, 154–155
  altered mental status, 67
  back pain, 116
  cardiac disease, 168–170, 181, 183
dyspnea, 140, 143, 149
  indications for surgery, 313
  psychiatric emergencies, 72
CHF. see congestive heart failure
cholecystitis, 267
cholelithiasis/choledocolithiasis, 24
cholesterol status, 83, 92, 152, 234, 246, 394
‘Choosing Wisely Movement’, screening, 29
chronic lymphocytic leukemia (CLL), 321, 323, 335, 336, 342
chronic myelogenous leukemia (CML), 335, 341, 343
chronic obstructive pulmonary disease. see COPD
chronic vestibular syndrome (CVS), 242, 245
cigarette smoking, 86, 103, 145, 152
  back pain, 116, 117
  cardiac disease, 168–170, 173
  functional decline, 259
  oncology, 321, 341
  stroke, 203, 213
cirrhosis of the liver, 43, 61, 307
clearance/elimination, medication pharmacokinetics, 47
CLL. see chronic lymphocytic leukemia
clock drawing test, 44
clopidogrel, 103, 282, 294
‘closing the loop’ method, 403
Clostridium difficile, 322
cluster headaches, 129, 136
CML (chronic myelogenous leukemia), 335, 341, 343
codeine, 376
cognition
  assessment, 6, 8–9
  case study, 412, 413
  changes with aging, 22
  pain management, 371
  pharmacological issues, 46
  trauma, 286–287
  see also executive function
Cognitive Assessment Method (CAM), 412
Colles fracture deformity, 29
colic obstruction. see bowel obstruction
communication with patients, care transitions, 401–404. see also discharge instructions
community-acquired pneumonia (CAP), 226, 321, 322
  community-based care transitions programs (CCTPs), 402
comorbidities. see complex emergencies
Competencies for Emergency Medicine Resident’s in Geriatric Care (Hogan et al.), 410–411
complete blood count (CBC)
  abdominal pain, 104
  cardiac disease, 169
  indications for surgery, 304
  infection, 219, 224
complete metabolic panel (CMP), falls and fractures, 29
complex emergencies, 369, 409
  assessment, 6, 38, 39
  abdominal pain, 103
  back pain, 115
  cardiac disease, 160, 174
complex emergencies (continued)
care transitions, 395–397, 402
changes with aging, 22
dyspnea, 142
functional decline, 253, 266
infections, 220
oncology, 323, 325
stroke, 206, 207
surgery, 308, 309
trauma, 288, 291
compression fractures, 111
computed tomography angiography (CTA), 155–157
computed tomography. see CT (computed tomography)
computer-generated reviews, pain medication, 381
conduction system, changes with aging, 17
confusion, 58, 63
assessment/workup, 64, 65
dyspnea, 140, 143
end-of-life care, 386, 387
pharmacological issues, 43, 45, 46, 50, 51, 53, 54, 126–127
see also altered mental status
Confusion Assessment Method (CAM), 9, 64, 65
congestive heart failure (CHF), 169, 173
diuretics, 51
dyspnea, 141, 143, 146–147
suicidal ideation, 78
weakness and functional decline, 252
constipation, 100
continence
activities of daily living, 33–34
assessment, 9, 11
back pain, 118, 119
changes with aging, 19, 24
weakness and functional decline, 258
COPD (chronic obstructive pulmonary disease)
abdominal pain, 83
acute chest pain, 157
altered mental status, 58, 60, 62, 66
care transitions, 394–396, 398, 401
dyspnea, 140, 141, 146, 147, 149, 150
polycythemia vera, 341
suicidal ideation, 78
coronary artery bypass grafting (CABG), 176, 177
coronary artery disease (CAD), 171
acute chest pain, 152–154, 157
altered mental status, 58
dyspnea, 145–147, 149
headache, 123
corticosteroid medication, 119, 120, 130, 135, 136, 276
Coumadin. see warfarin
creatinine
assessment, 8
cardiac disease, 170
changes with aging, 18
pulmonary embolism, 162
CRUSADE National Quality Improvement Initiative, 176
CSHA-1 (Canadian Study of Health and Aging), 9
CT (computed tomography) scans, 3, 5
abdominal pain, 83, 85–87, 89–96, 107
altered mental status, 58, 60, 61, 66, 67
back pain, 116
cerebral venous sinus thrombosis, 133
cervical spine injuries, 294
diverticulitis, 105
dizziness and vertigo, 235
delay abuse and neglect, 332
falls, 264–266, 270
head injury, 364
headache, 124
indications for surgery, 304, 306–308, 312
infection, 219, 220
pancreatitis, 104
psychiatric emergencies, 77, 79
pulmonary embolism, 161–162
stroke, 204–206, 209, 210, 212
syncope, 195
trauma, 280, 282–284
CTA (computed tomography angiography), 155–157
CVA (cerebrovascular accident). see stroke
CVP (central venous pressure), 142. see also blood pressure
CVS (chronic vestibular syndrome), 242, 245
cytochrome p450, 47, 48
D-dimer values
acute chest pain, 159
altered mental status, 67
cerebral venous sinus thrombosis, 133
general assessment, 8
pulmonary embolism, 161
syncope, 193
dabigatran, 52, 148, 180, 282, 315
death
acceptance, 74, 220
trajectories, 389, 390
see also end-of-life care
decubitus ulcerations, 228–229
depth venous thrombosis (DVT), 160, 264, 267, 304
Delirium (organic brain syndrome). *see* altered mental status
Delirium Triage Screen (DTS), 64
dementia, 58, 63–64
  assessment, 1, 2, 4, 9, 38
  changes with aging, 21
  discussion/differential diagnoses, 59–64
  end-of-life care, 386–388
  psychiatric emergencies, 75–79
dental problems, changes with aging, 23
depression, 67
  assessment, 2, 5
  changes with aging, 22
  falls and fractures, 28
  psychiatric emergencies, 71–74, 76–79
  suicidal ideation, 78
dexamethasone, 119
diabetes, 169, 171, 174
  falls, 28, 29, 264, 265
  medication, 3
  pharmacological issues, 53–54
  spinal epidural abscess, 117
diabetic ketoacidosis (DKA), 144, 156
diagnostic imaging. *see* imaging
diaphoresis, 174
dietary supplements, 54–55
digoxin, 2, 8, 49, 62, 147, 180, 185
discharge instructions, 28, 30, 403–405
  back pain, 113
  pain management, 364, 378–379
  syncope, 195, 200
  disseminated intravascular coagulation (DIC), 338
  distribution, medication pharmacokinetics, 47
diuretics, 50–51, 51
  diverticulitis, 86–87, 105
  Dix–Hallpike test, 234, 247–248
dizziness and vertigo, 210, 234, 238–239, 249
  acute vestibular syndrome, 242, 246, 247
  assessment/workup, 239–242
  ATTEST algorithm, 240, 240, 242, 246, 249
  benign positional vertigo, 234, 241, 244–245, 248–249
  chronic vestibular syndrome, 242, 245
  diagnosis, 248
  discussion/differential diagnoses, 234–237, 241, 242
electrolyte abnormalities, 236
  management and treatment, 248–249
  migrainous vertigo, 241, 243
  physical examination, 234, 246–248
  spontaneous episodic vestibular syndrome, 243, 247–248
  transient ischemic attacks, 244, 248
  triggered episodic vestibular syndrome, 244
  vestibular neuritis/labyrinthitis, 241, 242, 242, 246–248
  DKA (diabetic ketoacidosis), 144, 156
  DNR (do not resuscitate) orders
dyspnea, 141–142
  end-of-life care, 387, 388
  infection, 220–222
  *see also* end-of-life care
dopamine, 22
driver safety, 196, 297, 298. *see also* motor vehicle accidents
drug seekers, 110, 115
drug–drug interactions, 7, 44, 47–48, 374. *see also* pharmacological issues
DTS (Delirium Triage Screen), 64
DVT (deep venous thrombosis), 160, 264, 267, 304
dyspnea, 139, 144–155, 150
  acute chest pain, 158, 160
  acute coronary syndrome, 145–146, 174
  atrial fibrillation, 147–148
  cardiac disease, 146–147, 168, 182
  COPD/asthma, 149
discussion/differential diagnoses, 139–144
  pneumonia, 148–149
  pulmonary embolism, 149–150
  weakness and functional decline, 252
dysrhythmia, 169, 177, 178
  altered mental status, 67
  assessment, 7
  changes with aging, 17, 19
  dyspnea, 147, 149
  falls, 266
  pharmacological issues, 51, 53
  rhythm control, 147, 180–181, 185
  syncope, 17
  *see also* atrial fibrillation
early systemic infection. *see* infection
Eastern Association for the Surgery of Trauma (EAST), 281, 288, 289, 294
ECG. *see* electrocardiograms
education and training, 411–412
EKG. *see* electrocardiograms
elder abuse and neglect, 351, 354–355, 360, 414
decision-making, 357–360
discussion/differential diagnoses, 351–354
legal implications, 360
perpetrators, 357, 357–358
reporting, 359–360
elder abuse and neglect (continued)
  risk factors, 357–359
  screening tools, 358–359
  trauma, 296–297
  type of, 355–357
Elder abuse suspicion index (EASI), 358, 359
electrocardiograms (EKGs)
  abdominal pain, 83–86, 88, 101–102, 107
  acute chest pain, 152, 154, 155, 159, 163
  acute coronary syndrome, 174–175
  altered mental status, 58, 67
  cardiac disease, 168–174, 182–183
  changes with aging, 17
  dizziness and vertigo, 236
  dyspnea, 144
  falls and fractures, 30
  indications for surgery, 304, 307
  oncology, 321
  stroke, 203
  syncope, 191–193, 199
  trauma, 287
  weakness and functional decline, 252
electrolyte abnormalities, 3, 8, 19, 20
  abdominal pain, 91, 92, 104
  altered mental status, 60, 67
  back pain, 119
  cardiac disease, 169, 178, 183
  dizziness and vertigo, 235, 236
  dyspnea, 147
  elder abuse and neglect, 353
  falls, 275
  oncology, 328
  pharmacological issues, 51
  surgery, 312
  syncope, 199
  tumor lysis syndrome, 328–329
  weakness and functional decline, 254
see also calcium metabolism; metabolic disorders;
  phosphate metabolism; potassium metabolism;
  sodium metabolism
electronic medical record (EMR), 193, 403, 405
Emergency Care of the Elder Person (Sanders), 410
Emergency Department Depression Screening
  Instrument (ED-DSI), 77
emergency medicine, geriatric
  best practices for receiving older adults into the ED, 402
  functional assessment, 37–38
  limitations, 2–3
see also geriatric emergency case study
Emergency Nurses Association (ENA), 408, 410, 411
emotional abuse, 355, 357, 358. see also elder abuse
  and neglect
encephalitis, 229
endocrine system, changes with aging, 19, 24–25
end-of-life care, 386
  assessment, 2, 3, 389, 389
  case study, 414
  death trajectories, 389, 390
  decision-making, 392–393
  decision-making capacity, 391–392
  discussion/differential diagnoses, 386–388
  dyspnea, 144–145, 150
  goals of care, 390–392
  infection, 220–222
  oncology, 327
  patient wishes, 205, 212, 220–221, 317–318
  prognosis, 388–389
  refusal of care, 392
  stroke, 204–205
  surgery, abdominal, 317–318
  trauma, 297
see also DNR (do not resuscitate) orders
endoscopic retrograde cholangiopancreatography (ERCP), 105
environmental modifications, ED, 412, 412
epidemiology, 409–410
  altered mental status, 63
  atrial fibrillation, 177
  cardiac function/disease, 173
  changes with aging, 17–25
  depression, 74
  dyspnea, 150
  elder abuse and neglect, 354–355
  falls, 270
  headache, 127
  heart failure, 182–183
  infection, 223
  medication issues, 7, 46–53
  myeloproliferative disorders, 340–342
  myocardial infarction, 157
  pain management, 370
  stroke, 208–209
  suicide, 78
  surgery, 309, 311, 316–317
  syncope, 196–197
  trauma, 288–289, 294, 295
episodic vestibular syndrome (EVS), 240, 242–244
Epley maneuver, 234, 237, 244, 245
ERCP. see endoscopic retrograde
  cholangiopancreatography
erysipelas, 228
erythrocytosis, oncology, 341, 341, 342
Escherichia coli, 223, 227
executive function
changes with aging, 22
functional assessment, 9, 32, 34
pharmacological issues, 44
expectations management, 2–3, 5, 10, 388, 397
falls, 264, 269, 276
acute illnesses contributing, 273
assessment, 28, 271, 272
atrial fibrillation, 179, 180, 182
changes with aging, 21, 272–273, 272
classification of etiology, 271–276
discussion/differential diagnoses, 264–269
dizziness and vertigo, 238
dyspnea, 147
elder abuse and neglect, 351
gait disturbance, 274
general assessment, 10
infection, 229
management and treatment, 270–271
medication-related, 265, 267, 268, 275–276, 276
orthogeriatric care model, 296
pain management, 364
stroke, 203
test batteries, 273, 274, 275
trauma, 269–270, 280, 281, 297
weakness and functional decline, 257
families, expectations management, 2–3, 5, 10, 388, 397
family support
case study, 414
falls, 266, 268–269
major depressive disorder, 73
transitions of care provision, 397, 399–400
see also elder abuse and neglect
fatigue, cardiac disease, 169. see also weakness
fecal incontinence, 24. see also continence
Federal Patient Self-Determination Act (1991), 391
femoral nerve blocks, 295, 296, 378
fentanyl, 377
fever, 21
assessment, 8
infection, 223
neutropenic, 327–328
spinal epidural abscess, 117–118
financial exploitation of elders, 355, 357, 358
folate, 79
foley catheters, 143
formusculoskeletal back pain, 113
fractures
assessment, 28
falls, 266, 267
oncology, 332
pain management, 363, 366, 367
frailty, 258–260
acute coronary syndrome, 177
assessment, 10, 37
death trajectories, 390
falls, 265
functional decline, 257–260, 259
see also weakness
Frailty Index, 258
fresh frozen plasma (FFP), 315
functional assessment, 6, 9–11, 28–33, 37–38
activities of daily living, 33–34
case study, 412–413, 413
discussion/differential diagnoses, 28–33
frailty, 37
gait speed, 34–35
grip strength, 35–36
pain management, 372
performance testing, 34–37
vision and hearing, 37–38
functional decline, 2, 5, 10, 260–261
falls, 29, 272, 272
see also frailty; weakness
functional reach test, 273, 275
gait disturbance, falls, 274
gait speed, functional assessment, 34–35
gallstones, pancreatitis, 104–105
gastroesophageal reflux disease (GERD), 163
gastrointestinal (GI) problems
abdominal pain, 84, 88
altered mental status, 61
indications for surgery, 304–306, 308
medication-related, 84, 126
gastrointestinal system, changes with aging, 19, 23–24
GCS (Glasgow Coma Scale), 203, 205
GENE (Geriatric Emergency Nurses Education), 411
general assessment. see assessment
Geneva score, acute chest pain, 161, 164
genitourinary system, changes with aging, 19, 24. see also urinary tract infection
GERD (gastroesophageal reflux disease), 163
geriatric, 13
Geriatric depression scale, 413
geriatric emergency case study, 407, 409–410, 414
decision-making, 414
discussion/differential diagnoses, 407–409

425
geriatric emergency case study (continued)
education and training, 411–412
end-of-life wishes, 414
environmental modifications, 412, 412
guidelines, 407–411
medication, 413
model, 410–411
pain assessment, 413–414
procedures and policy modifications, 412
screening/assessment, 412–413, 413
staffing patterns, 411
see also emergency medicine, geriatric
Geriatric Emergency Department Innovations in care through Workforce, Informatics, and Structural Enhancements (GEDI WISEs), 404
Geriatric Emergency Medicine Task Force, SAEM, 8–10, 379, 402, 410
Geriatric Emergency Nurses Education (GENE), 411
Get Up and Go Test, 10, 35, 273, 274
giant cell arteritis, 130, 136
Glasgow Coma Scale (GCS), 203, 205
global registry of acute coronary event (GRACE), 177
glomerular filtration rate, 8, 47, 147
glycemic control, 54
cardiac disease, 169
changes with aging, 21
dyspnea, 140, 144
falls, 28, 265
stroke, 204
glycoprotein IIb/IIIa inhibitors, 176
goals of care, 391
care transitions, 402
end-of-life care, ethics of, 390–392
functional decline, 253
heart disease, 32
infections, 220, 221
oncology, 325–327
pain management, 372, 380
stroke, 204
trauma, 284, 294, 295, 297
grip strength, functional assessment, 35–36
growth hormone, changes with aging, 25
guidelines, evidence-based care, 32, 38, 39, 407–411
abdominal pain, 106
cardiac disease, 171, 175, 176, 180, 182
depression, 76
diabetes, 53
falls, 267
fever, 328
headache, 128, 130, 131, 134, 135
infection, 224, 225, 228
mediation, 49
oncology, 322, 323, 327, 328, 336, 338, 339, 341
radiology, 90
trauma, 281, 287, 288, 289, 294, 297

Haemophilus meningitis, 229
hallucinations, psychiatric emergencies, 78
Handbook of Geriatric Emergency Medicine (Wilson et al.), 410
Hartford Foundation, 410
HASBLED scoring system, stroke risk, 179
HCAP (healthcare-associated pneumonia), 226, 227
HCTZ (hydrochlorothiazide), 43, 252, 253, 255, 256
head injury, 282–285, 294, 364. see also trauma
headache, 123, 127–128
decision-making, 136
discussion/differential diagnoses, 123–127
management and treatment, 135–136
primary, 128–130
secondary, 130–134
stroke, 203
testing, 135
health, and aging, 13, 25, 395–396. see also physiologic changes
health insurance, 266, 267
Health Insurance Portability and Accountability Act, 283
healthcare-associated pneumonia (HCAP), 226, 227
hearing impairment
assessment, 10, 11, 37–38
changes with aging, 18, 22
heart failure (HF), 182–183, 254. see also cardiac function; congestive heart failure; ischemic heart disease
heart rate
abdominal pain, 100
assessment, 1–2, 7, 8
back pain, 110
changes with aging, 17, 18, 19
dyspnea, 140, 142
general headache, 123
pharmacological issues, 44, 46
see also vital signs
hematology
altered mental status, 65
changes with aging, 18, 21
oncology, 334–343, 335, 336, 339–343
hemophilia, 338–339, 339
hemorrhagic stroke, 124, 208–209
heparin-induced thrombocytopenia (HIT), 337
hepatic clearance, drug pharmacokinetics, 47.
see also liver
herbal remedies, 54–55
hernias, abdominal pain, 92
herpes simplex virus, 133, 229
herpes zoster (HZ) virus, 106, 124, 162–163
HINTS tests (Head Impulse–Nystagmus–Test of skew), 246, 247
hip fractures, 23, 29, 308
falls, 265, 270
functional decline, 252, 253, 258
pain management, 366, 378
trauma, 285, 287, 295–296, 293
HIPAA (Health Insurance Portability and Accountability Act), 283
HIT (heparin-induced thrombocytopenia), 337
holistic approach to patients, 6
horizontal head impulse test (HIT), 246–247
hospice care, general assessment, 1, 3–6
hydrochlorothiazide, 43, 253, 255, 256
hydrocodone, pain medication, 376
hydromorphone, pain medication, 376
hypercalcemia. see calcium metabolism
hyperthyroidism. see thyroid gland
hypercholesterolemia. see cholesterol status
hyperglycemia. see glycemic control
hyperkalemia. see potassium metabolism
hyperleukocytosis, oncology, 343
hyperlipidemia. see cholesterol status
hyperparathyroidism. see phosphate metabolism
hypertension. see blood pressure
hyperuricemia, oncology, 328–329, 329
hyperventilation, altered mental status, 65
hypnic headache, 130, 136
hypocalcemia. see calcium metabolism
hypoglycemia. see glycemic control
hyponatremia. see sodium metabolism
hypotension, orthostatic, 7, 20, 48, 276. see also blood pressure
hypothyroidism. see thyroid gland
hyperventilation, altered mental status, 65
HZ (herpes zoster) virus, 106, 124, 162–163
IABP (intra-aortic balloon pump), 184
IADL. see instrumental activities of daily living
ICD (International Classification of Diseases, 258
Identification of Seniors at Risk tool (ISAR), 260–261, 412
IDSA (Infectious Disease Society of America), 328
imaging
abdominal pain, 94–95, 107
atrial fibrillation, 178
back pain, 111, 116
headaches, 135
heart failure, 183
indications for surgery, 312–313
pain management, 364–365
see also CT; MRA; MRI; ultrasound; X-ray
immune thrombocytopenia, oncology, 336–337
immunology, changes with aging, 18, 21, 24
infection, 218, 223–225
altered mental status, 60, 61, 64–65, 105, 219, 220, 222, 229
assessment, 2, 7, 8
back pain, 112, 117–119
central nervous system, 229
changes with aging, 18, 21, 24
clinical evaluation, 224–225
clinical features, 223, 225
decision-making, 229
diagnosis, 311
discussion/differential diagnoses, 219–223
dyspnea, 140
neutropenic fever, 327–328
oncology, 334
postoperative, 317
psychiatric emergencies, 72
respiratory, 226–227
skin/soft tissue, 228–229
syncope, 192, 194, 198, 199
systemic inflammatory response, 224
see also urinary tract infection
Infectious Disease Society of America (IDSA), 328
instrumental activities of daily living (IADL), 33.
see also activities of daily living
insurance, healthcare, 266, 267
international normalized ratio (INR)
abdominal pain, 90, 104
altered mental status, 58, 62
atrial fibrillation, 179
falls, 267, 268
indications for surgery, 307
intra-aortic balloon pumps (IABP), 184
intra-arterial stroke treatment, 211–212
intracranial hemorrhage, 124, 208–209, 283, 284
intravenous thrombolysis, stroke treatment, 211, 212
Iowa Pain Thermometer, 373, 373
IRAD (International Registry of Aortic Dissection), 154, 159
ISAR (Identification of Seniors at Risk tool), 260–261, 412
ischemia, abdominal pain, 86
ischemic heart disease, 157–158, 173, 181. see also acute coronary syndrome
ischemic stroke, 208–209, 212
ITP (primary immune thrombocytopenia), 336–337
John A. Hartford Foundation, 410

kidneys. see renal system
Klebsiella infection, 223
Korsakoff’s syndrome, 73, 74
laboratory testing, 8
  abdominal pain, 94, 107
  altered mental status, 65
  changes with aging, 22
  headaches, 135
  heart failure, 183
  indications for surgery, 312
  psychiatric emergencies, 77
labyrinthitis, 241, 242, 243, 246–248
lactate levels
  abdominal pain, 85, 94, 107
  infection, 218–221, 223, 224, 225
  syncope, 192, 193, 199
  trauma, 286, 291, 297
lacunar infarction, 209
large bowel obstruction (LBO), 91–92
left bundle branch block (LBBB), 144, 158, 175
legal implications, elder abuse, 360. see also litigation
lethargy, pharmacological issues, 41
leukemia, 321, 328, 335, 336, 341–343
leukocytosis, oncology, 334
leukostasis, oncology, 343, 343
LFTs (liver function tests), 219
lidocaine, 378
ligaments, changes with aging, 15, 23
lisinopril, 41
Listeria meningitis, 229
litigation, malpractice, 220, 323–324
liver
  changes with aging, 20
  cirrhosis, 41, 59, 307
  drug pharmacokinetics, 45
  infection, 219
locked-in syndrome, 210
loss of reserve. see reserve, loss of
low back pain. see back pain
low-molecular-weight heparin (LMWH)
  acute coronary syndrome, 177
  cardiac disease, 177, 178, 182
  dizziness and vertigo, 237
dyspnea, 144–146
headaches, 133
oncology, 337–339
surgery, 305, 315
lumbar puncture, 123, 125
lung cancer, abdominal pain, 99. see also oncology
magnetic resonance angiogram. see MRA
magnetic resonance imaging. see MRI
major depressive disorder. see depression
malignancy. see oncology
malnutrition. see nutritional deficiencies
malpractice, litigation, 220, 323–324
Manchester Self-Harm Rule, suicidal ideation, 76
MARD (migraine-anxiety-related dizziness), 245
material exploitation, elder abuse and neglect, 355, 357
MCA (middle cerebral artery), stroke, 209–210
MDS (myelodysplastic syndrome), 339–340, 340
mechanical falls, 28, 29
medication, 413
  assessment, 1–3, 6, 8, 10
  back pain, 113–114
  drug metabolism, 24
  pain management, 373–378
  see also pharmacological issues
Menière’s disease (MD), 241, 243
meningitis, 132–133, 229
mental status, altered. see altered mental status
meperidine, 377
mesenteric ischemia, abdominal pain, 93–94
mesenteric thrombosis, 84
metabolic disorders
  altered mental status, 57, 63
  falls and fractures, 29
  pharmacological issues, 42, 59
  tumor lysis syndrome, 328–329, 329
  see also electrolyte abnormalities
metabolism, medication pharmacokinetics, 45
metastatic disease
  back pain, 112–115
  falls and fractures, 29
  see also oncology
metastatic spinal cord compression (MSCC), 119–120
metformin, 52
methicillin-resistant Staphylococcus aureus. see MRSA
MI. see myocardial infarction
middle cerebral artery (MCA), stroke, 209–210
migraine, 123, 124, 128–129, 135
migraine-anxiety-related dizziness (MARD), 245
migrainous vertigo, 241, 243
mini mental status examination (MMSE), 4, 9, 413
Minimum Geriatric Competencies for Emergency Medicine Residents (Hogan et al.), 411
mirtazapin, 71
mobility, general assessment, 10, 11
modified Epley maneuver, 234, 237, 245, 248
Montreal Cognitive Assessment (MoCA), 412, 413
mortality risk/rates. see epidemiology
motor vehicle accidents (MVAs), 288, 294, 295, 297.
see also driver safety; trauma
MPD. see myeloproliferative disorders
MRA (magnetic resonance angiography), 125, 131, 159, 209, 235–237
MRI (magnetic resonance imaging)
back pain, 113
cerebral venous sinus thrombosis, 133
cervical spine injuries, 294
chest pain, 159
dizziness and vertigo, 235–237
falls, 265, 271
headache, 125–127, 131
spinal epidural abscess, 118
stroke, 204, 209
MRSA (methicillin-resistant Staphylococcus aureus), 148, 223, 226–228, 328
MSCC (metastatic spinal cord compression), 119–120
multidimensional scales, pain assessment, 373
musculoskeletal system, 19, 22, 24, 29
MVAs. see motor vehicle accidents
myelodysplastic syndrome (MDS), 339–340, 340
myeloproliferative disorders (MPD), 340–342
myocardial infarction (MI), 176
abdominal pain, 82, 99, 103, 106–107, 317
acute, 174
chest pain, 154, 156–158
functional assessment, 30
prognosis, 102
weakness and functional decline, 252, 253
see also non-ST segment elevation myocardial infarction; ST-segment elevation myocardial infarction
myocardial ischemia, 49, 64, 85, 86, 89
myocarditis, 163
nasogastric (NG) intubation, 91, 293, 305–306, 317
National Ambulatory Medical Care Survey (NHAMCS), 257
National Center for Elder Abuse, 360
National Electronic Injury Surveillance System–Cooperative Adverse Drug Event Surveillance (NEISS–CADES) project, 7
National Registry of Myocardial Infarction (NRMI), 174
nausea and vomiting
acute coronary syndrome, 173–174
stroke, 203
surgery, 304–306, 310
syncope, 191
near-death experiences, 192
neglect, 355, 357, 358. see also elder abuse and neglect
Neisseria meningitidis, 229
neurocardiogenic syncope, 197
neurology
altered mental status, 63–64
changes with aging, 18, 21–22, 310
see also central nervous system
neurotransmitter signaling, 22, 46
neutropenic fever, 327, 328, 342, 343
NEXUS (National Emergency X-Radiography Utilization Study), 294
NHAMCS (National Ambulatory Medical Care Survey), 257
NIH stroke scale (NIHSS), 1, 209, 212
NOACs (novel oral anticoagulants), 176, 179, 180
noninvasive ventilation (NIV), 184
non-ST segment elevation myocardial infarction (NSTEMI), 158, 173–176, 185
management and treatment, 175–176
weakness and functional decline, 252, 254
see also acute coronary syndrome
nonsteroidal anti-inflammatory drugs (NSAIDs)
abdominal pain, 86, 102
adverse drug reactions, 47
pain management, 366, 369, 375
pharmacological issues, 50, 51, 51
surgery, 314
topical application, 377–378
trauma, 291, 294
norepinephrine, changes with aging, 22
normal pressure hydrocephalus (NPH), 73, 74, 77
North American Clinics of Geriatric Medicine (Assessment of Generalized Weakness), 255
novel oral anticoagulants (NOACs), 176, 179, 180
NRMI (National Registry of Myocardial Infarction), 174
NSAIDs. see nonsteroidal anti-inflammatory drugs
NSTEMI. see non-ST segment elevation myocardial infarction
number needed to harm/number needed to treat, acute coronary syndrome, 253
numeric rating scales, pain management, 372–373, 373
nutritional deficiencies
  altered mental status, 63
  falls and fractures, 29
  psychiatric emergencies, 73, 74, 77
  nutritional supplements, 52–53

O3DY screening instrument, 9, 10, 413
occupational therapy (OT), falls and fractures, 30–31
oculostenotic reflex, 172
Older American Resources and Services (OARS), 31
oligoanalgesia, 82–83, 157, 295, 370–371
oncology, 321, 326–327
  abdominal pain, 99
  adrenal failure, 331
  airway obstruction, 331–332
  back pain, 117, 119–120
  biliary disease, 89–90
  bone disease/fractures, 332
  decision-making, 343
  depression, 74
  discussion/differential diagnoses, 321–326
  headache, 124, 130–131
  hematologic, 334–343, 335, 336, 339–343
  hypercalcemia, 329–330
  hyponatremia, 330–331, 331
  large bowel obstruction, 91
  neutropenic fever, 327–328, 328
  pericardial effusion, 333
  psychiatric emergencies, 70
  spinal cord disease, 332–333
  suicidal ideation, 76
  superior vena cava syndrome, 333–334
  tumor lysis syndrome, 328–329, 329
  ophthalmological causes, headache, 134
opioids, 366, 370, 375–377
  GI motility, 86
  headache, 126–127
  pharmacological issues, 51
  psychiatric emergencies, 75
  surgery, 314
see also morphine
organ dysfunction, 335
  infection, 221, 224, 224
  trauma, 291
organ failure, death trajectories, 390
orthogeriatric care model, falls, 296
orthostatic hypotension, 7, 20, 46, 276
osteoporosis, changes with aging, 19, 23. see also bone
Ottawa 3DY screening instrument, 9, 10, 413
oxycodone, 376

PADL (Performance Test of Activities of Daily Living), 32, 34
Pain Assessment in Advanced Dementia Scale, 413
pain management, 364, 369, 380–381
  addiction, 370
  administration route, 377–378
  ageism, 370
  assessment, 365, 369, 371–373, 373
  case study, 413–414
  classifications of pain, 370
  cognitive impairment, 371
  decision-making, 381
  discharge instructions, 378–379
  discussion, 363–369
  epidemiology, 370
  guidelines, 374–375, 378–379
  hip fracture, 295–296
  medication, 373–378
  pharmacological issues, 371
  monitoring and quality assurance, 379–380
  nonpharmacologic interventions, 378
  subjective vs. objective pain observation, 370–371
  surgery, 314
Palliative Performance Scale, 389, 389
palliative surgery, 318
pancreatitis, 104–105
Parkinson's disease, 74
paternalism, 387, 396
patient best interest, assessment, 3, 6, 10
patient wishes
  complex problems, 396
  elder abuse and neglect, 354
  end-of-life care, 387
PCC (prothrombin complex concentrate), 315
PE (pulmonary embolism), 8, 149–150, 160–162
peptic ulcer disease, 103–104
PERC (Pulmonary Embolism Rule-out Criteria), 161
percutaneous coronary intervention (PCI), 146, 158, 175–177, 185
Performance Test of Activities of Daily Living. see PADL
Performance-Oriented Q4 Assessment of Balance and Gait., 413
pericardial effusion, 85, 156, 157, 163, 171, 184, 197, 333
pericarditis, 163
pharmacists, 374
pharmacological issues, 41, 44–46, 413
  adverse drug reactions, 7, 46–48, 48, 53
  altered mental status, 57–59, 64
  atrial fibrillation, 49, 177–180
INDEX

cardiac disease, 177–178
changes with aging, 44–46, 373–374
decision-making, 53
discussion/differential diagnoses, 41–44
dizziness and vertigo, 235
falls, 264–268, 276, 276–277
gastrointestinal problems, 305
headache, 124, 126–127, 134
pain management, 369, 371, 377
pharmacodynamics, 46
pharmacokinetics, 45–46
psychiatric emergencies, 75
specific drugs, 48–53, 309
surgery, 314–315
syncope, 193, 197–198
thrombocytopenia, 337
trauma, 282, 295
see also Beers criteria for potentially inappropriate medication use
phosphate metabolism, 328–329, 329. see also electrolyte abnormalities
physical abuse, 356, 357, 358. see also elder abuse and neglect
physical activity, and frailty, 258–259, 259
physical examinations
  abdominal pain, 84
  back pain, 111
  dizziness and vertigo, 234, 246–248
  general assessment, 8
  heart failure, 183
  infection, 224
  pain management, 364
  syncope, 194, 198
  weakness and functional decline, 253–254
  see also rectal examination
physical performance test (PPT), functional assessment, 35
physical therapists (PTS), falls and fractures, 30, 33
physiologic changes with aging, 17, 18–19, 21, 24
  cardiovascular system, 17, 18,19–20
  endocrine systems, 19,24
falls, 270–272, 271
gastrointestinal system, 19, 23–24
genitourinary systems, 19, 24
hematology/immunology, 18, 21
mediation, 44–46, 373–374. see also pharmacological issues
musculoskeletal system, 19, 22, 23
neurology, 18, 21–22
pulmonary system, 18, 20
renal system, 18, 20–21
surgery, 309–310
trauma, 280, 291
see also reserve (loss of)
pictorial pain scales, 373
pilocarpine, 276
PMF (primary myelofibrosis), 341
pneumonia, 226–227
  abdominal symptoms, 317
dyspnea, 140, 144–149
healthcare-associated, 226–227
oncology, 323–325
pneumothorax, 160
policy modifications, geriatric emergency department, 412
polycythemia vera (PV), 340–342, 342
polypharmacy, 6, 47–49, 53, 374, 409, 412, 413
  altered mental status/psychiatric emergencies, 64, 76
care transitions, 396
dyspnea, 147, 149
surgery, 305, 318
trauma, 280
weakness/functional decline, 260
see also pharmacological issues
Portal of Geriatrics Online Education (POGOE), 411
posterior circulation
  stroke, 210
transient ischemic attacks, 242
postoperative delirium, 317
potassium metabolism
  changes with aging, 18
  oncology, 328, 329
  see also electrolyte abnormalities
potentially inappropriate medications (PIMs), 49. see also Beers criteria
PPIs (proton pump inhibitors), 73, 103, 104
primary immune thrombocytopenia (ITP), 336–337
primary myelofibrosis (PMF), 341
prodromes
  abdominal pain, 107
  falls, 28–29
  headache, 129
  syncope, 191, 193, 197, 201
Project BOOST (Society of Hospital Medicine), 401
Project RED (Boston University Medical Center), 401
Prospective Investigation of Pulmonary Embolism Diagnosis (PIOPED), 161
prostate cancer, 111–115
prostatic hypertrophy, general assessment, 1, 4
prothrombin complex concentrate (PCC), 315
proton pump inhibitors (PPIs), 73, 103, 104
INDEX

PSA (prostate-specific antigen), 112, 115
pseudomonas infections, 117, 118, 223, 227, 322
psychiatric emergencies, 65, 69
assessment/workup, 72–77
decision-making, 77
discussion/differential diagnoses, 69–72
management and treatment, 70, 72, 77
suicidal ideation, 71, 75–77
see also altered mental status
psychological abuse, 355, 357, 358. see also elder abuse and neglect
psychomotor slowing, changes with aging, 18, 22
psychosis, psychiatric emergencies, 76
pulmonary embolism (PE), 8, 149–150, 161–163
Pulmonary Embolism Rule-out Criteria (PERC), 161
pulmonary system. see respiratory system
pulse oximetry, 8, 139
purpura, senile, 337
PV (polycythemia vera), 340–342
QT intervals, 51, 198
quality of life, end-of-life care, 387
quantitative resuscitation, infection, 224–225
radiography. see imaging
Ramsay Hunt syndrome, 241, 246
randomized evaluation of long-term anticoagulation therapy (RE-LY) trial, 180
Ranson criteria, pancreatitis, 105
rapid ventricular response (RVR), 147, 186
RASS (Richmond Agitation and Sedation Scale), 1, 4, 9
rectal examination
abdominal pain, 82
back pain, 111
indications for surgery, 305
syncope, 193–194
red flag issues
acute chest pain, 154
back pain, 111
care transitions, 400, 404
dizziness and vertigo, 237
dementia, 222, 225, 226
elder abuse and neglect, 358, 359
falls, 265
indications for surgery, 310
refusal of care, 392. see also end-of-life care
renal system
changes with aging, 18, 22, 28, 310
failure, acute cardiac disease, 169
medication pharmacokinetics, 45
reserve, loss of, 17, 24, 25
acute coronary syndrome, 177
aging as, 17
dyspnea, 145
weakness and functional decline, 255
see also physiologic changes with aging
respiratory infections, 223, 226–227
respiratory rate
abdominal pain, 81, 99, 100, 102
back pain, 110
dyspnea, 139–150
general assessment, 1, 2, 8
headache, 123
pharmacological issues, 41, 42
see also vital signs
respiratory system, changes with aging, 18, 20, 310
rheumatoid arthritis, 264, 265, 270
rib fractures, 295
Richmond Agitation and Sedation Scale (RASS), 1, 4, 9
right upper quadrant (RUQ), abdominal pain, 90
ROCKET (rivaroxaban) trial, 180
RVR (rapid ventricular response), 147, 185
SAD PERSONS score, suicidal ideation, 76
SAEM. see Society for American Emergency Medicine
SAH (subarachnoid hemorrhage), 123, 124, 131–132
salicylate toxicity, 42, 64, 142, 144. see also aspirin
San Francisco Syncope Rule (SFSR), 200
sarcopenia, 257, 259
SBO (small bowel obstruction), 90–91
schizophrenia, psychiatric emergencies, 76
screening. see assessment; assessment instruments
SEA (spinal epidural abscess), 117–118
secondary headaches, 130–134
selective serotonin reuptake inhibitors (SSRIs), 265, 276
self-neglect, 358. see also elder abuse and neglect
senile purpura, 337
sepsis, 223. see also infection
septic shock, 95, 221, 222, 224, 225, 226, 327
serotonin, changes with aging, 22
serum chemistry. see laboratory testing; metabolic disorders
sexual abuse, 356, 357, 360. see also elder abuse and neglect
SFSR (San Francisco Syncope Rule), 200
shock, general assessment, 2, 7–8. see also septic shock
Short Blessed Test, 412, 413
Short Michigan Alcohol Screening Test–Geriatric Version (SMASH-GV), 75
Short Physical Performance Battery (SPPB), 32, 35, 273
shortness of breath (SOB), 394–395, 397. see also dyspnea
‘show-me’ method, 403
SIADH. see syndrome of inappropriate antidiuretic hormone
sick sinus syndrome, general assessment, 7
sinoatrial node pacemaker cells, 7, 17
SIRS. see systemic inflammatory response syndrome
Six-Item Screener (SIS), 1, 9
Sloan Survey, 7
SMA (superior mesenteric artery) occlusion, 93–94
small bowel obstruction (SBO), 90–91
smoking. see cigarette smoking
shortness of breath (SOB), 394–395, 397. see also dyspnea
social evaluation, general assessment, 6, 10
social isolation, psychiatric emergencies, 76
social issues, complex problems, 395, 396
social support. see family support
Society for American Emergency Medicine (SAEM) education and training, 412
Geriatric Task Force, 8–10, 379, 402, 410
guidelines for evidence-based care, 408, 410
sodium metabolism
changes with aging, 18, 22
dizziness and vertigo, 235
falls, 265
oncology, 330–331, 331
weakness and functional decline, 254–256
see also electrolyte abnormalities
somatic pain, 86, 88
sotalol, 181
spinal cord disease, 24, 111, 119–120, 332–333
spinal epidural abscess (SEA), 117–118
spontaneous episodic vestibular syndrome (SEVS), 240, 243, 244, 247–248
SPPB (Short Physical Performance Battery), 32, 35, 273
SSRIs (selective serotonin reuptake inhibitors), 265, 276
stable angina, 153
staffing, geriatric emergency department, 411
standing balance performance test, 33
Staphylococcal meningitis, 229
Starling effect, changes with aging, 18, 19
START (Screening Tool to Alert doctors to Right Treatment) criteria, 47
statins, 173, 276
stealth strokes, 211
steroids (medication), 264, 266, 268, 276
stoicism, 28, 83, 114, 308
pain management, 364, 365, 368, 372
STOPP (Screening Tool of Older Person’s Prescriptions), 47
Streptococcus pyogenes, 228
stress response, changes with aging, 17, 24, 25
stroke, 181, 203, 213
altered mental status, 64
atrial fibrillation, 177–178
decision-making, 213
diagnosis, 211
discussion/differential diagnoses, 203–208
general assessment, 3
management and treatment, 211–212
prognosis, 209, 211–213
types, 124, 208–211, 283, 281
ST-segment elevation myocardial infarctions (STEMIs), 146, 168, 173, 174, 185
acute chest pain, 155
indications for surgery, 307
management and treatment, 176
trauma, 281, 289
weakness and functional decline, 253
see also acute coronary syndrome
subarachnoid hemorrhage (SAH), 123, 124, 131–132
subdural hematoma, 76, 124, 265, 283
substance abuse, 74, 77, 133–134, 370
sudden death, death trajectories, 390
suicidal ideation, 71, 75–77
superior mesenteric artery (SMA) occlusion, 93–94
superior vena cava syndrome (SVCS), 333–334
support networks. see family support
surgery, abdominal, 90, 304–305, 311, 316
assessment/workup, 312–315
changes with aging, 311
classification to assess risk, 315, 315–316
complications, 316–317
decision-making, 318
discussion/differential diagnoses, 305–309
end-of-life wishes, 317–318
epidemiology, 309, 311, 316–317
management of surgical issues, 313–314
pharmacological issues, 314
pain management, 314
see also abdominal pain (surgical causes)
surgery, acute coronary syndrome, 178
SVCS (superior vena cava syndrome), 333–334
sympathoadrenal system, changes with aging, 24
syncope, 191, 196–197, 200–201
acute chest pain, 153
acute coronary syndrome, 173–174
INDEX

syncope (continued)
changes with aging, 18
discussion/differential diagnoses, 191–196
diuretics, 49
dyspnea, 148
etiology, 197–198
falls, 30, 266–268
management and treatment, 199–200
pharmacological issues, 46
prognosis, 195
pulmonary embolism, 161
testing, 199
syndrome of inappropriate antidiuretic hormone (SIADH), 236, 254, 331
systemic inflammatory response syndrome (SIRS), 224, 223, 224. see also infection
tachycardia. see heart rate
TACTICS-TIMI 18 study, 176
tamponade, 93, 156, 157, 163, 171, 183, 197, 333
tamsulosin, 41, 43
TBI (traumatic brain injury), 294. see also trauma
TCAs (tricyclic antidepressants), 51, 52, 366
‘teach-back method’, 403
TEE (transesophageal echocardiography), 178, 183
telemedicine
stroke, 206–208
trauma, 283
temperature. see body temperature
temporal arteritis, 123, 124
tendons, changes with aging, 19, 23
tension headaches, 124, 128, 135–136
terminal illness, death trajectories, 390. see also end-of-life care
test batteries. see assessment instruments
tetanus, 58
tEVS (triggered episodic vestibular syndrome), 242–244
thiamine, 73, 74, 77
3-CPO trial (Efficacy of Non-invasive Ventilation in Patients with Acute Cardiogenic Pulmonary Oedema.), 184
thrombocytopenia, oncology, 336–338
thrombocytopenic thrombotic purpura (TTP), 239–338
thrombocytopsis, oncology, 340–342, 341
thrombolysis in myocardial infarction (TIMI) score, 172, 176
thyroid gland, 304
altered mental status, 63
changes with aging, 24–25
dyspnea, 141
falls and fractures, 28–30
psychiatric emergencies, 70
weakness and functional decline, 252, 253
thyroid stimulating hormone (TSH), 69, 70, 144
timed manual performance test (TMP), 32, 34
timed up and go (TUG) test, 33, 413, 413
TLS (tumor lysis syndrome), 328–329, 329
topical pain medication, 377–378
toxidromes. see pharmacological issues
tPA (tissue plasminogen activator), 206, 209, 211, 212
taining, geriatric emergency medicine, 411–412
tramadol, 376
transesophageal echocardiography (TEE), 178, 183
temporary ischemic attacks (TIAs), 3, 129, 181, 210, 211
dizziness and vertigo, 243–244, 248
tions of care provision. see care transitions
tansthoracic echo (TTE), 155, 176, 181, 182, 194
trauma, 280, 297, 299
cervical spine injuries, 294–295
changes with aging, 280, 291
decision-making, 298
diagnosis, 293
discussion/differential diagnoses, 280–288
driver safety, 298
der elder abuse and neglect, 297
d end-of-life wishes, 297
epidemiology, 288–290
falls, 280, 281, 297
head injury, 282, 283, 285, 287, 294
hip fracture, 295
management and treatment, 290–291, 292–293, 296, 297
pharmacological issues, 282, 295
resulting from falls, 269–271, 280, 281
rib fractures, 295
ri e criteria, 280, 281, 287, 290
traumatic brain injury (TBI), 294
traumatic headache, 123–125, 132
TRIST (Triage Risk Screening Tool), 261, 412
tricyclic antidepressants (TCAs), 51, 52, 366
trigeminal neuralgia, 124, 129–130, 136
triggered episodic vestibular syndrome (tEVS), 242, 244
TSH (thyroid stimulating hormone), 69, 70, 144
TTE (transthoracic echo), 155, 178, 181, 183, 194
TTP (thrombocytopenic thrombotic purpura), 239–338
TUG (timed up and go) test, 33, 413, 413
tumor lysis syndrome (TLS), 328–329, 329
UA. see urinalysis
ultrasound (US) examinations
abdominal pain, 83, 84, 96
back pain, 112
INDEX

| chest pain | 157 |
| dyspnea | 150 |
| heart failure | 183 |
| indications for surgery | 312 |
| United States, oncology practice | 324, 326 |
| United States Preventive Services Task Force | 35, 84 |
| unstable angina (UA) | 153, 174–175, 185. see also acute coronary syndrome |
| urinalysis | 3, 4, 29 |
| abdominal pain | 81, 85, 106–107 |
| altered mental status | 56, 58, 62, 65, 66 |
| dizziness and vertigo | 240 |
| end-of-life care | 388 |
| falls | 264 |
| infections | 218, 224, 227–228 |
| oncology | 327 |
| psychiatric emergencies | 69, 76, 77 |
| surgery | 312 |
| syncope | 192 |
| urinary tract infection (UTI) | 222 |
| abdominal pain | 81, 85, 105–107 |
| altered mental status | 62 |
| changes with aging | 24 |
| dyspnea | 144 |
| falls and fractures | 29 |
| general assessment | 3–5 |
| infection | 227–228 |
| pharmacological issues | 41 |
| psychiatric emergencies | 70 |

US. see ultrasound examinations

| vascular catastrophes, back pain | 116–117 |
| vascular dementia | 73 |
| vascular system, changes with aging | 20 |
| vasodilators | 126 |
| vasovagal syncope | 197 |
| venous lactate-guided therapy | 293 |
| venous thrombosis (VT) | 160 |
| vertebral osteomyelitis (VOM) | 118–119 |
| vertebrobasilar infarction | 210 |
| vertebrobasilar occlusion (VBO) | 212 |
| vertebrobasilar stenosis | 237, 241 |
| vertebrobasilar syndrome | 234–236 |
| vertigo. see dizziness and vertigo |
| vestibular migraine | 239, 243, 245 |
| vestibular neuritis | 241, 242, 244, 246–248 |
| vision |
| assessment, 10, 35–36 |
| changes with aging, 18, 22 |
| visual pain scale | 365, 373 |

vital signs

| abdominal pain | 81, 99–100, 102 |
| acute chest pain | 152 |
| altered mental status | 52 |
| assessment | 1–2, 7–8 |
| back pain | 110 |
| cardiac disease | 168 |
| case study | 407 |
| dyspnea | 139, 140, 144 |
| elder abuse and neglect | 351 |
| end-of-life care | 386 |
| falls | 264 |
| headache | 123, 126 |
| indications for surgery | 304, 313 |
| infection | 218 |
| pharmacological issues | 41, 42 |
| oncology | 321 |
| psychiatric emergencies | 69 |
| syncope | 193, 198 |
| trauma | 280, 291 |

see also blood pressure; body temperature; heart rate; respiratory rate

| vitamin B12 deficiency | 74, 77 |
| vitamin K antagonists | 63–64 |
| volvulus | 91–92 |
| VOM (vertebral osteomyelitis) | 118–119 |
| vomiting. see nausea and vomiting |
| von Willebrand’s disease (vWD) | 336 |
| VT (venous thrombosis) | 160 |

walking speed, functional assessment, 32–33

| warfarin | 103, 179–180, 304 |
| falls | 264–268 |
| pharmacological issues | 6, 50, 310 |
| studies | 50 |
| surgery | 305, 315 |

see also anticoagulation therapy

| weakness | 252, 255–260, 261 |
| acute chest pain | 153 |
| changes with aging | 19 |
| decision-making | 261 |
| discussion/differential diagnoses | 252–254 |
| diuretics | 49 |
| functional assessment | 29, 34 |
| general assessment | 7, 10 |
| management and treatment | 261 |
| pharmacological issues | 41 |
| nonspecific | 257–258 |
| pathophysiology | 257 |

see also frailty; functional decline
INDEX

Wells score, acute chest pain, 161, **164**
Wernicke’s encephalopathy, 73
white blood cell (WBC) count, 304, 307
wishes. see expectations management;
  patient wishes
withdrawal headaches, 133–134
Wong–Baker Scale, 373
wounds, infection, 228–229

xanthochromia, 124, 125
X-rays
  abdominal pain, 85, 101
  back pain, 110, 111
  falls and fractures, 29, 30
  indications for surgery, 307
  trauma, 297
see also chest X-ray