

Acetaminophen-cont'd

index

А

AACPI, 2 Abdominal pain cancer-related, 534t Crohn's disease and, 597-598 Absorption, drug elderly and, 687, 688 intraspinal local anesthetics and, 228 of opioid, 167-169, 168f rectal, 204 Abstinence syndrome, 609, 616-617 nalbuphine causing, 614 Abuse elder, 706 substance, 428-462; see also Addiction Accountability for pain management, 3-4, 730, 733 Accreditation, 730, 733 Acetaminophen antihistamines with, 150 aspirin with, 148-149 breast feeding and, 623 caffeine with, 316 clinical considerations for, 108-110 combination drugs with, 116-117, 134 definition of, 130 dosage of, 139t for child, 143t frequency, 139-140t, 140-141 guidelines for, 142 opioid equivalent, 133t titration of, 141 elderly and, 690 equianalgesic dosage of, 133t hemophilia and, 599 indications for, 131-134 infant and, 653-654 mechanism of action of, 130 nonprescription formulations of, 148t

t after a page number indicates a table, box, or form; f after a page number indicates an illustration.

nonsteroidal antiinflammatory drugs versus, 104 overdose of, 151-152 pregnancy and, 611, 613 preparations of, 148t as rectal suppository, 150t safety of, 110 side effects of, 134-136 tension headache and, 558 Acetic acid derivative, 139t Acetylsalicylic acid; see also Aspirin infant and, 654 migraine and, 554t Acquired immunodeficiency syndrome, 564-568, 566f peripheral neuropathy and, 576 Action potential definition of, 16 nociception and, 19t transduction of pain and, 18 Action stage of drug treatment, 448 Action sites, analgesic, 106-107f Acupuncture for fibromyalgia, 549 Acute pain model adaptation versus, 43-45 correction of, 45-46 Acute pain services, 11 Acute versus chronic pain, 493-494; see also Pain entries Adaptation model, 43-46 Addiction challenges of, 462 definition of, 36, 50-51, 162, 429, 433-436 discussing with patient and family, 275-276t drugs of abuse and, 432-433, 432t, 433t elderly and, 705-706 family's fear of, 10 infant and, 631 as label, 51, 53-54 memory of pain and, 30 misconceptions about, 52-53t, 276t, 430t, 439-440 misinterpretation of, 173-174

models of, 431-432, 431t

Addiction-cont'd to opioid, 173-174 undertreatment of pain and, 9 pain management in, 450-462, 455t, 460t chronic pain and, 461-462, 477 clinical principles in, 453-454 inpatient, 454-456, 461t naltrexone and, 460-461 outpatient, 456, 458 overlap between, 452-453 recovery from addiction and, 459-460 patient information about, 275-276t patient placement and, 451, 451t phenomenology of, 436-440 response documentation, 459t treatment of, 440-450 characteristics of, 441 cognitive-behavioral, 445-446 commonalties in, 446 detoxification and, 441-442 drugs used in, 442t, 443-445 referral for, 446-450 residential, 446 twelve-step, 442-443 written agreement for, 754-755 Adenocard; see Adenosine Adenoscan; see Adenosine Adenosine, 339 Adenosine triphosphate, 22 Adhesive, tissue, 395 Adjuvant analgesics, 105f, 302-353 for acute pain, 335-340 alcohol as, 334-335 alpha₂-adrenergic agonists as, 313-314 antidepressants as, 306-311, 306t; see also Antidepressants antihistamines as, 334 benzodiazepines as; see Benzodiazepine breast feeding and, 623-624 caffeine as, 315-316 cannabinoids as, 334 in children, 340, 341t for chronic pain bone, 324-326, 325t classes of, 305t lancinating, 320-324 multipurpose drugs for, 306-317 musculoskeletal, 327-328, 327t neuropathic, 317-320, 317t, 328-332 classifications, 304t major, 305t clinical considerations for, 112-113 cocaine as, 316 combination analgesics with, 116 comparison of, 114f, 115 corticosteroids as, 311-313 definition of, 104, 162 dextroamphetamine as, 314-315 dosage of, 341-344t elderly and, 695-698 examples of, 109t

Adjuvant analgesics-cont'd general considerations in, 303-306 guidelines for use, 342-344t indications for, 316-317 local anesthetics as, 316 for malignant bone pain, 325t for malignant bowel obstruction, 327t methylphenidate as, 314-315 misconceptions about, 303t neuroleptics as, 316-317, 332-334 NMDA receptor blockers as, 317 pain mechanism affected by, 108 patient information about, 340, 345-353t pediatric dosing, 341t pregnancy and, 614-615 reflex sympathetic dystrophy and, 583 temporomandibular dysfunction and, 590 titration of, 122 Administration of analgesic; see Route of administration; specific route Administrative rules on pain management, 738 Admission assessment of pain, 58-59, 59t Adrenocorticotropic hormone, pain and, 24 Adult protective services, 706 Adverse drug effects elderly and, 689 fetal, 621 HIV and, 566-567 infant and, 655 Advil; see Ibuprofen Afferent neuron, 16 Age elderly and, 674-706; see also Elderly patient infant and, 629-669; see also Infant opioid and, 192 pain assessment and, 57 shingles and, 561 Agency for Health Care Policy and Research clinical practice guidelines of, 7, 43-44 education of clinicians and, 89 low back pain and, 600 nondrug pain treatment and, 423 patient education materials of, 274 quality improvement and, 713 undertreatment of pain and, 2 Aggregation, platelet, 138, 144 Agitation in alcohol withdrawal, 457 Agonist, mu; see Mu agonist Agonist-antagonist buprenorphine, 188 butorphanol, 188-189 characteristics of, 188-190 clinical considerations for, 112 combination analgesics with, 116 comparison of, 114 definition of, 162, 363 dezocine, 189 examples of, 109t intranasal administration of, 203 labor and delivery and, 618

Agonist-antagonist-cont'd mild pain and, 191 misconceptions about, 163t mu agonist with, 112 nalbuphine, 189 opioid receptor sites and, 166 pentazocine, 189-190 pruritus and, 265-266 Agreement, written, 751-752 AHCPR; see Agency for Health Care Policy and Research AIDS, 564-568, 566f peripheral neuropathy and, 576 Alcohol addiction, 432t CAGE questionnaire about, 705 elderly and, 705-706 pharmacologic effects and, 432 psychiatric disorders with, 436-437, 436t, 437t treatment of, 445 withdrawal assessment and, 457t Alcohol as adjuvant analgesic, 334-335 Alcoholics Anonymous, 442-443, 442t Aleve; see Naproxen Algorithm for infant care, 662-663f Alka-Seltzer, 148t Allergy aspirin, 144 intraspinal local anesthetics and, 228 nonsteroidal antiinflammatory drug and, 110 opioids and, 193 Allodynia, 302 definition of, 16 herpes zoster and, 562 Alpha₂-adrenergic agonist clonidine; see Clonidine examples of, 305t indications and dosages of, 342t neuropathic pain and, 321t Alpha₁-blocker for postmastectomy pain, 604 Alzheimer's disease, 675 Ambulatory surgery, 145 Amerge; see Naratriptan Americaine; see Benzocaine American Academy of Head, Facial and Neck Pain, and TMJ Orthopedics, 516 American Academy of Hospice and Palliative Medicine, 13 American Academy of Pain Medicine, 11 American Academy of Physical Medicine and Rehabilitation, 516 American Alliance of Cancer Pain Initiatives, 2, 11 American Amputee Foundation, 516 American Board of Internal Medicine, 6 American Board of Pain Medicine, 516 American Burn Association, 527 American Chiropractic Association, 516 American Chronic Pain Association, 516 American College of Emergency Physicians clinical practice guidelines of, 7 unknown cause of pain and, 47 American Foundation for Pain Research, 516 American Pain Society, 516-517 acute pain model and, 43-44

American Pain Society-cont'd clinical practice guidelines of, 7 definition of pain and, 16 education of clinicians and, 89 founding of, 11 home page, 747f pain care committee and, 715 patient-controlled analgesia, 249 quality improvement and, 713 unknown cause of pain and, 47 web site of, 747f American Society of Addiction Medicine, 461 American Society of Clinical Oncology, 6 American Society of Pain Management Nurses, 517 certification and, 11, 13 founding of, 11 placebo and, 55-56 Amethocaine, 376 Amitriptyline, 305t, 306t as adjuvant analgesic, 306 breast feeding and, 623-624 for child, 341t dosage of, 343t elderly and, 696-697, 699t fibromyalgia and, 548 indications for, 310 tension headache and, 555t Amphetamine, 193 Amputation, 257-258 pain after, 603-604 phantom limb pain after in elderly, 694 previous acute pain and, 30-31 Anacin, 149t Anafranil; see Clomipramine Analgesia; see also Analgesics balanced; see Balanced analgesia conscious, 382-384t epidural; see Epidural analgesia intraspinal; see Intraspinal analgesia masking diagnostic information with, 47 optimization of, 122-123 overview of, 103-128 patient-controlled; see Patient-controlled analgesia preemptive; see Preemptive analgesia principles of, 121-123 procedures requiring, 365t Analgesics action sites, 106-107fadjuvant; see Adjuvant analgesic "Andrew-Robert survey" and, 38t, 40 assessment of, 38t combined; see Combination analgesics combining, 105t, 116t differential diagnosis, 172t formulary guide, 737t by infusion; see also Infusion flow sheet for, 79-80t, 83-86t groups and subgroups, 105t, 109t comparisons of, 114t

Analgesics-cont'd list of, 125t nonopioid, 129-159; see also Acetaminophen; Nonsteroidal antiinflammatory drug nonprescription, 148-149t nurses response to survey, 40t opioid; see Opioid analgesic pregnancy misconceptions, 610t patient controlled, 754t outpatient opioids, 755t topical, 331t; see also Topical agents use of, 38t during pregnancy, childbirth, postpartum, and breast feeding, 608-625 Analgesic ceiling definition of, 104, 130, 162, 363 elderly and, 690 Analgesic groups, 104-128 Analgesic ladder, WHO, 115-119, 117f Anaprox; see Naproxen "Andrew-Robert" survey, 38t, 40t nurses' expectations about pain and, 44 Anecdotal evidence, 302 Anemia, sickle cell, 585-588 Anesthesia action sites, 319f circumcision and, 636-637 epidural; see Epidural analgesia general, 386-389, 387t local; see Local anesthetic low back pain and, 600 nerve block records and, 511-512t Aneurysm, aortic, 26 Angiography, back pain from, 391 Animal, companion, for relaxation, 421 Ankylosing spondylitis, 595-596 Antacid misconceptions about, 131t prevention of ulcers and, 137 Antagonist, 162 opiod, inappropriate use, 269 Antenatal period, 609 Anterior deltoid trigger point, 571f Antiarrhythmic agent for temporomandibular dysfunction, 590 Anticholinergic agent antidepressants as, 308 elderly and, 695, 697 malignant bowel obstruction and, 327, 327t opioids and, 193 Anticonvulsants action sites, 319f adverse effects of, 322-324 breast feeding and, 624 carbazepine and, 321 clonazepam and, 322 dosage for, 324 elderly and, 697 examples of, 305t gabapentin and, 322 herpes zoster and, 562

Anticonvulsants-cont'd indications and dosages of, 342t lamotrigine and, 322 mechanism of, 322 migraine and, 555t neuropathic pain and, 321t peripheral neuropathy and, 578 phenytoin and, 321-322 pregnancy and, 615 temporomandibular dysfunction and, 590 valproic acid and, 322 Antidepressants action sites of, 309f analgesics, 306t adjuvant, 306t action sites, 309f breast feeding and, 623-624 for child, 341t for chronic pain, 306-311 adverse effects of, 308-310 amitriptyline and, 306 clomipramine and, 307 desipramine and, 307 dosage of, 310-311 doxepin and, 307 imipramine and, 306-307 indications for, 310 mechanism of action of, 308 monitoring of, 311 newer, 307 nortriptyline and, 307 selection of, 310 elderly and, 696-697, 699t fibromyalgia and, 548 herpes zoster and, 562 misconceptions about, 303t neuropathic pain and, 317, 317t, 321t osteoporosis and, 575 pregnancy and, 614-615 temporomandibular dysfunction and, 590 tricyclic in elderly, 696-697 examples of, 306 indications and dosages of, 343t modulation of pain and, 23 opioids and, 193 peripheral neuropathy and, 578 postmastectomy pain and, 604 tension headache and, 555t Antidiuretic hormone, 24 Antihistamine as adjuvant analgesic, 334 elderly and, 695 nonopioids with, 150 opioids and, 193 Antiinflammatory drug, nonsteroidal, 129-159; see also Non-steroidal antiinflammatory drug Antiparkinsonian drug, 193 Antipyretic, 144; see also Aspirin; Nonsteroidal antiinflammatory drug

Antisocial personality, 436 Antiviral agent herpes zoster and, 563 HIV and, 565 Anxietv alcohol addiction and, 436 withdrawal from, 457 burn injury and, 529t as cause of pain, 48-49 chronic pain and, 500 definition of, 468 reducing, 390t Aortic aneurysm, 26 APAP, 138t, 148t, 150t Aphthous ulcer in HIV, 566-567 Appliance for temporomandibular dysfunction, 590 Arachnoiditis, 596 Around the clock dosing, 175 cognitively impaired elderly and, 704 rescue dose and, 244-246 Arteritis, temporal, 695-696 Artery, coronary, bypass of, 694 Arthriten, 149t Arthritis, 523-527, 524f, 525f alternative treatment for, 690t in child, 143t Arthritis Foundation Aspirin Free, 148t Arthropan; see Choline salicylate Artificial saliva, 602 ASA; see Aspirin Aseptic necrosis, 539 Aspirin acetaminophen with, 148-149 allergy or intolerance to, 144 bleeding and, 135, 138 buffered, 149 dosage of, 139t for child, 143t equianalgesic dosage of, 133t indications for, 131 infant and, 654 nonprescription formulations of, 148-149t overdose of, 150-151, 152 pediatric dosage of, 143t renal function and, 136 topical, 332 Aspirin Free Maximum Strength, 148t Aspirin Free Pain Relief, 148t Assessment, 36-99, 123 addiction and, 461 admission, 58-59, 59t of analgesic history, 124t, 125t arachnoiditis and, 596 behavioral responses, 43-45, 95t challenges in, 89, 92-99 chronic pain and, 477-486, 492-493, 508-509 complexities of, 36-39 Crohn's disease and, 598 elderly and, 686-687 epidural anesthesia, 230-231t

Assessment-cont'd failure to attain, 36-38 of headache, 550, 552 herpes zoster and, 562 initial, 58-62, 60f, 61f institutional needs, 724-726 lack of accountability for pain and, 3-4 low back pain and, 599-600 misconceptions affecting, 37t, 39-58 addiction and, 50-54 authority about pain and, 39-42 clinician's expectations and, 44-46 implications of, 56-58 know versus unknown cause of pain and, 46-50 pain threshold and, 42 pain tolerance and, 42-43 placebos and, 54-56 responses to pain and, 43-44 multiple sclerosis and, 602 myofascial pain syndrome and, 569-570 ongoing, 97t pain management and, 720-730 physiologic responses, 43-45, 95t postmastectomy pain and, 604 postthoracotomy pain and, 606 of procedural pain, 366-367 spinal cord injury and, 607 tools for, 58-89 breakthrough pain and, 75, 78 communication strategies and, 84, 86, 89 flow sheets and, 78-84, 85 initial, 59-62, 60-61f, 60-61t neuropathic pain scale, 75, 76-77 nursing admission, 58-59 pain rating scales and, 62-75 teaching to use, 67-75, 74t Association for Applied Psychophysiology and Biofeedback, 517 ATC dosing, 175 cognitively impaired elderly and, 704 rescue dose and, 244-246 Atenolol, migraine and, 555t Atherosclerosis, 696 Ativan; see Lorazepam Atraumatic suturing, 395 Atrophic stage of reflex sympathetic dystrophy, 582 Audit, medical record pain management, 727 Auditory disturbance in alcohol withdrawal, 457 Aura, migraine, 552 Aventyl; see Nortriptyline

B

Back pain, 599–600 alternative treatment for, 690*t* angiography causing, 391 arachnoiditis and, 596 chronic, 473–474 failed back syndrome and, 496 osteoporosis causing, 573 pregnancy causing, 615–616 Back pain-cont'd psychiatric setting and, 475-476 Background pain with burn injury, 529t Baclofen, 305t indications and dosages of, 343t modulation of pain and, 23 multiple sclerosis and, 603 overview of, 324 Bacteriostatic saline, 370 Balanced analgesia characteristics of, 174-175 clinical application of, 120, 120t concept of, 174-175 definition of, 162 explanation of, 119-121 perioperative, 144-145 Barbiturate for procedural analgesia, 381, 386 Barriers to assessment, 37t to drug treatment, 449 to pain management improvement, 714 questionnaire, 93t to treatment, 37t Barriers Questionnaire, 89, 92, 93 Bathing, contrast, 411 Bayer Select Aspirin-Free Headache, 149t BC preparation, 149t Beck Depression Inventory, 519 Bedrest, osteoporosis and, 574 Behaviors addictive; see Addiction drug-seeking, 52-53t, 429 addiction versus, 434-435 elderly and, 686-687 indicative of pain, 95t memory of pain and, 30 pain description of, 95 expectations about, 44-46 impaired communication and, 95, 98 in infant, 633-634, 633f, 649 Behavioral method of treatment drug abuse and, 442t, 445-446 infant and, 658-659 for procedural pain management, 389-390 Benzocaine for procedural pain, 369t topical, 371-372 Benzodiazepines addiction to, 433 as adjuvant analgesic, 335 adverse effects of, 381 alcohol withdrawal and, 458 common, 495t detoxification protocol, 458t elderly and, 698 examples of, 327t infant and, 655 equisedating doses, 656t labor and delivery and, 618-619

Benzodiazepines-cont'd as nonanalgesic, 113 opioid with, 499 pregnancy and, 615 procedural analgesia with, 380, 381 misconceptions about, 364t for procedural sedation, 385-386t Beta-blocker for migraine, 555t, 556 Bethanechol elderly and, 697 side effects of, 308 Bier block, 584 Biliary spasm, opioids causing, 265 Bill of rights for patients with pain, 13 Binding opioid receptor sites and, 108 protein, in elderly, 688 Bioavailability definition of, 162 intraspinal anesthesia and, 220-222 of opioids, 167-169 Biphosphonate, 325, 325t Bipolar disorder, 436 Birth; see Labor and delivery Black market for drugs, 438-439 Bleeding angiography and, 391 nonsteroidal antiinflammatory drugs causing, 138, 144 gastrointestinal, 136, 137, 145-146 at operative site, 145-146 perioperative, 145-146 Bleeding time aspirin and, 135, 137 nonsteroidal antiinflammatory drugs and, 138, 145 Block nerve; see Nerve block paravertebral sympathetic ganglion, 583-584 Blood disorder hemophilia and, 598-599 sickle cell disease, 585-588 Blood -brain barrier, 162 patch, 232 vessels, in migraine, 553 Board, state medical, 9-10 Board of Registered Nursing, 6 Body surface area in burn injury, 527 Boluses, 211 cesarean section and, 622-623 elderly and, 693 intraspinal, 220, 221 intermittent, 221t titration of dose and, 247 Bones aseptic necrosis of, 539 cancer-related pain in, 109t, 113, 324-326, 325t, 533t indomethacin affecting formation of, 147 malignant, 325t osteoporosis and, 572-576 Bowel obstruction, 326-327, 327t

Brace for osteoporosis, 575 Brachial plexus cancer-related pain and, 535t radiation fibrosis of, 540t Brain addiction and, 432 dopamine pathway in, 434 migraine and, 553 opioid receptors in, 165-166 pain perception and, 22 Brand names of nonopioid drugs, 138t Braxton Hicks contraction, 616 Breakthrough pain burn injury causing, 529t fentanyl for, 202-203 opioids for, 175 rating scale for, 75, 78 selection of analgesic for, 121 Breast postmastectomy pain and, 604 postpartum pain and, 622 Breast cancer, 532t age and, 678t Breast feeding, 610, 623-624 acetaminophen during, 623 adjuvant analgesics during, 623-624 nonsteroidal antiinflammatory drugs during, 142 opioid analgesics during, 623 Breathing technique labor and delivery and, 617 for relaxation, 419-420 Brief Pain Inventory, 61, 62 cultural differences and, 98 Bromo-Seltzer, 148t Brompton's cocktail, 316 Buccal administration of opioids, 195t, 201 Buffered aspirin, 149 gastric injury and, 137 Bupivacaine breast feeding and, 623 dosage of, 369t elderly and, 694 injectable, 368 intraspinal, 228 labor and delivery and, 618, 620 for procedural pain, 369t Buprenorphine characteristics of, 188 equianalgesic doses of, 242t labor and delivery and, 112, 618 opioid receptor sites and, 166 Bupropion, 306t Burns depth of, 528f management pathway of acute care, 529t pain, 527-531, 528f Bursitis, 690t Butorphanol characteristics of, 188-189 labor and delivery and, 618

Butorphanol nasal spray, 112 Bypass surgery, coronary artery, 694

С

Cafergot; see Ergotamine Caffeine as adjuvant analgesic, 315-316 beverages containing, 151t breast feeding and, 624 indications and dosages of, 344 nonsteroidal antiinflammatory drugs with, 149-150, 149t CAGE questionnaire, 705 Calan; see Verapamil Calcitonin bone pain and, 325, 325t indications and dosages of, 344 neuropathic pain and, 321t, 330 osteoporosis and, 574 Calcium-channel blocker cluster headache and, 556t migraine and, 555t Cancer pain initiatives, 11 Cancer-related pain, 531-543, 532t, 533t adjuvant analgesics for, 109t, 113 bone pain and, 324-326, 325t bowel obstruction and, 326-327, 327t Brompton's cocktail for, 316 characteristics of, 532-537 cost of, 4 death statistics, 532t description of, 531-532 elderly and, 678-679, 678t family's attitude toward, 10 intraspinal sufentanil for, 227 intravenous opioid for, 211 management of, 539-542 mucositis and, 601-602 musculoskeletal tumor, 533t neuropathic, 535-536t noncancer pain versus, 47-48 nondrug treatment of, 401, 405 oxycodone for, 243 patient-controlled analgesia for, 249 postchemotherapy, 538-539t postradiation, 540t postsurgical, 537t procedures and treatment causing, 537-540, 537-540t rescue analgesia for, 247-248 resources for, 542 sites of, 532t spinal cord compression as, 339-340 stomal administration of opioid in, 205-206 viscera involvement, 534t WHO analgesic ladder for, 115-119 Cannabinoid, 334 Capaisin, 305t adverse effects of, 332 Carbamazepine, 305t adverse effects of, 322-323 for child. 341t

Carbamazepine-cont'd indications and dosages of, 342t neuropathic pain and, 321t overview of, 321 Carcinoma; see Cancer-related pain Cardiac disease in elderly, 698 Cardiac surgery in elderly, 678t in infant, 662 Cardiotoxicity of antidepressants, 309-310 Cardiovascular system antidepressants in elderly and, 697 Ehlers-Danlos syndrome and, 543 harmful effects of pain on, 25-26 local anesthetic in elderly and, 698 Caregivers for elderly, 684, 685t, 686 report of patient's pain, 39-40 Carisoprodol, 305t, 327, 328 elderly and, 700 musculoskeletal pain and, 327t Case report, 302 Catabolism, 16 Catheters in child, 237 epidural, 218f, 221t location of, 248 patient education about, 366 removal of, 82, 236t patient placement, 218f spinal, 214-216, 232-233 intraspinal displacement and migration, 233t urethral, 372 Catheritization, atraumatic urethral, 372t Causalgia, 581-584 Cause and effect diagram, 722f-723f Ceftriaxone with lidocaine, 371 Ceiling analgesia, 104, 162 for acetaminophen, 141 definition of, 130 elderly and, 690 for opioid-nonopioid combination drugs, 134 Celiac plexus neurolytic block for pancreatitis, 581 Cell, natural killer, 29 Central nervous system; see also Brain; Neurologic disorder nonsteroidal antiinflammatory drugs affecting, 138 opioid receptors in, 165-166 opioid withdrawal in infant and, 632 Centrally generated pain classification of, 19t definition of, 16 Cerebrospinal fluid dural puncture and, 232 intraspinal anesthesia and, 214, 221-222 Certification of pain specialists, 11-12 Cervical trigger point, 571f Cervical vertebral tumor, 533t, 536t Cesarean section, 621 clonidine for, 336 pain after, 622-623

Cessation of opioid therapy, 270-271 Cetacaine, 371-372 Chart equianalgesic, for opioids, 174, 240-243 graphic vital sign, 735 Checklist, patient teaching, 273 Chemical dependence, 429 Chemical irritation, wound pain and, 592-593 Chemotherapy, 538t-539t Chest surgery in elderly, 678t pain of, 605-606 Chest trauma, 26 Chest wall tumor, 533t Child adjuvant analgesics for, 340 clonidine for, 336 dosage of, 341t aspirin avoided in, 143t bupivacaine for, 237-238, 368 cancer-related pain in, 537 conscious sedation in, 382-385t epidural analgesia in, 236-239 local anesthetic toxicity in, 368 nondrug pain treatment for, 421, 422 nonsteroidal antiinflammatory drug for, 142-144, 143t opioid for intravenous, 211, 213 rectal administration of, 205 pain behavior in, 46 patient-controlled analgesia in, 253, 255t rectal administration in, 150t refrigerant spray for, 377 topical anesthetic for, 372 Childbirth, 617-623; see also Labor and delivery Chloral hydrate infant and, 655 procedural analgesia with, 386 Chlordiazepoxide, 698, 699t Chloroform in topical agent, 332 Chlorpromazine for migraine, 554t procedural analgesia with, 380 Chlorzoxazone, 305t, 700 musculoskeletal pain and, 327t Chocolate, caffeine in, 150 Choline magnesium trisalicylate bleeding disorder and, 138, 144 dosage of, 139t for child, 143t patient information sheet on, 155-156 Choline salicylate dosage of, 139t equianalgesic, 133t opioid equivalent, 133t trade name of, 138t Chronic fatigue immune deficiency syndrome, 597 Chronic fatigue syndrome, 597 Chronic illness problem inventory, 519

Chronic pain, 467-520, 490-505 acute care setting and, 473-475 acute pain versus, 493-494 addiction and, 461-462 treatment center for. 477 adjuvant analgesic for, 109t, 112-113 admission assessment and, 492-493 antidepressants for, 310 assessment of, 477-487 of bone, 109t, 113, 324-326, 325t, 533t breakthrough, 175; see also Breakthrough pain cancer-related; see Cancer-related pain challenges of, 472-473 in child, 143t; see also Child combination analgesics for, 116 cost of, 472 definition of, 17, 468, 471 drug management in, 494-499 education about, 494 elderly and, 679 in infant, 640 intraspinal administration and, 219f long-term planning in, 505 management techniques for, 505, 510 misconceptions about, 469-470t, 471 nerve blocks for, 510-513 nonmalignant activity changes, 509f anesthesia nerve block, 511-512t differential blocks, 510t examples, 472t medication, 489t opioid therapy, 498t patient assessment, 486t patient care, 491t patient daily plan, 506t patient future plan, 507t patient questionnaire, 478-485t psycyiatric disorders, 476t return visit survey, 508t severity of, 509f treatment, 489t treatment goals, 488t nonsteroidal antiinflammatory drugs for, 133-134, 138, 140, 142 opioid analgesics for, 492 written agreements about, 753-754 osteoporosis and, 574-575 placebos and, 492 polypharmacy in, 304 prevalence of, 471-472 previous acute pain and, 30 psychiatric settings and, 475-477 psychosocial considerations in, 499-503 referral for treatment of, 513, 516-520 rehabilitation and, 487-490, 503, 505 respect for individual and, 491-492 selection of analgesic for, 121 suicide risk and, 487 Cimetidine elderly and, 699t

Cimetidine-cont'd nonsteroidal antiinflammatory drugs and, 131t ulcer prevention and, 137 Circumcision, 371, 636-639 EMLA for. 376 memory of pain in, 30 City of Hope Medical Center, 4-5, 274 Classic migraine, 552 Clearance, drug of intraspinal local anesthetics, 228 of opioid, 169-170 Clinical pathway, 679-680, 738-739 Clinical practice guideline, 5, 7t Clinical scoring system for pain in infant, 641 Clinical trial, types of, 302 Clinician; see Health care professional Clodronate, 325 Clomipramine, 305t, 306t as adjuvant analgesic, 307 indications and dosages of, 343t Clonazepam, 305t adverse effects of, 323 characteristics of, 335 indications and dosages of, 342t as muscle relaxant, 327, 328 musculoskeletal pain and, 327t neuropathic pain and, 321t overview of, 322 Clonidine, 305t for crescendo pain, 336 dosage of, 314, 342t epidural, 229, 231, 315t herpes zoster and, 562 indications for, 314, 342t intraspinal, 229, 231 mechanism of, 313-314 neuropathic pain and, 321t peripheral neuropathy and, 579 for regional anesthesia, 337t Clorazepate, 698 Cluster headache, 558-559, 558f drugs for, 555t-556 Coagulation, 598-599 nonsteroidal antiinflammatory drugs and, 135; see also Bleeding vascular surgery and, 25-26 Cocaine addiction to, 432t, 433 as adjuvant analgesic, 316 in topical mixtures, 373 Cocktail, Brompton's, 316 Codeine characteristics of, 179t, 181 in combination drug, 117, 134 equianalgesic dosage of, 133t, 241t infant and, 655 nebulized, 203 pregnancy and, 614 transdermal fentanyl and, 209t Coerced drug treatment, 446

Cognitive impairment effects of pain and, 28-29 elderly and, 675, 686-687, 701-705 nonsteroidal antiinflammatory drugs and, 135 pain assessment and, 94 Cognitive-behavioral intervention cancer-related pain and, 541 chronic pain and, 500-501 drug abuse and, 442t, 445-446 procedural pain management and, 389-390 Cold, 406-411, 409f arthritis and, 526 herpes zoster and, 562 injection site pain and, 394-395 pain reduction with, 390 patient and, 410t, 411t Colon cancer, 532t age and, 678t Combination analgesics brands and dosages, 149t chronic pain and, 496 epidural, 694 examples of, 116-117 ketamine and morphine, 338 labor and delivery and, 618 mild pain and, 191 misconceptions about, 105t nonsteroidal antiinflammatory, 132, 149t opioid and nonopioid, 134 prevention of NSAID-induced ulcers and, 137 procedural analgesia with, 380 rationale for, 109-110, 115 WHO analgesic ladder and, 115-119 Combined spinal-epidural anesthesia, 231 COMFORT Scale, 649, 650 Commission on Accreditation of Rehabilitation Facilities, 517 Committee, pain care, 713, 715-737; see also Pain care committee Committee on Pain of the American Society of Addiction Medicine, 461 Communication aids to, 128 chronic pain treatment and, 488, 490 impaired, 92, 94-95, 98-99 nurse-physician, 92t pain assessment and, 84, 86, 89 Companion animal for relaxation, 421 Compazine; see Prochlorperazine Complex regional pain syndrome, 581-584 Compliance opioids and, 193-194 patient education for, 123, 124 Compression, spinal cord cancer-related, 539 corticosteroids for, 312, 313, 339-340 Confusion dementia versus, 704t elderly and, 675, 701-705 Conscious sedation, 382-385t Consent, informed, 365

Constipation burn injury and, 529t elderly and, 695 antidepressants and, 697 opioids causing, 262t Containment of infant, 659 Contemplation stage of drug treatment, 447t, 448 Contingency-based drug therapy, 446 Continuous dysesthesia, 302 adjuvant analgesics for, 317 Continuous infusion, 244; see also Infusion intraspinal, 220 in opioid naive patient, 250-251 Continuous quality improvement, 713-715; see also Quality improvement) Contract definition of, 751-752 for opioid use, 499 Contraction Braxton Hicks, 616 opioid affecting, 619 postpartum, 622 Contrast bathing, 411 Controlled study, 302 Controlled-release formulation in rescue analgesia, 121 Conversion chart, equianalgesic; see Equianalgesic dosage Cope, 149*t* Coping response, 404-405 addiction and, 438 chronic pain and, 501-503 Coping Strategies Questionnaire, 519 Cord, spinal; see Spinal cord Coronary artery bypass surgery, 694 Corticosteroid as adjuvant analgesic, 311-313 for bone pain, 325t, 326 breast feeding and, 624 cancer-related pain and, 538t, 541 cluster headache and, 556t elderly and, 697-698 examples of, 305t fibromyalgia and, 549 malignant bowel obstruction and, 327, 327t migraine and, 555t pregnancy and, 615 respiratory effects and, 26 transduction of pain and, 18 Cost of chronic pain, 471-472 of drug treatment, 441f of nonsteroidal antiinflammatory drugs, 141 of opioids, 194 of unrelieved pain, 4 Counterirritation, 390 COX-1, 130 COX-2, 130 Cramping, fibromyalgia and, 547-548 Cream, EMLA; see EMLA Creatinine clearance, 170t Crescendo pain, 335-340

CRIES neonatal pain scale, 642, 644t, 650 Criminal model of addiction, 431, 438-439 Crisis, sickle cell, 585-588 Criterion, 712 Critically ill infant, 661 Crohn's and Colitis Foundation of America, 517 Crohn's disease, 597-598 Cross-tolerance of opioids, 172 methadone and, 185-186 Crying by infant opioid withdrawal and, 632 pain and, 633, 633f CSEA; see Combined spinal-epidural anesthesia Cultural factors in pain assessment, 57, 98-99 Cumulation of opioid, 169-170 Curriculum guidelines for pain management, 5 Cushingoid appearance, 312 Cutaneous stimulation, 390, 405-412 heat and cold for, 406-411 sites for, 406f vibration as, 411-412 Cyclandelate, 699t Cyclobenzaprine, 305t elderly and, 700 fibromyalgia and, 548 as muscle relaxant, 327, 328 musculoskeletal pain and, 327t Cyclone for mucositis, 602 Cyclooxygenase, 132f nonsteroidal antiinflammatory drugs and, 130 Cyclooxygenase inhibitor, 130, 132f

D

Dalgan; see Dezocine Dalmane; see Flurazepam Darvon; see Propoxyphene Data definition of, 712 pain management, 720-730 qualify improvement, 721t Deafferentation pain, 19t, 302 Death, pain causing, 17 Debilitation, 675, 700-701 Decadrone; see Dexamethasone Deep breathing, 419-420 Delirium definition of, 675 opioids causing, 263t meperidine, 183-184 Delivery, drug; see Route of administration; specific route Delta opioid receptor site, 166 Delta-9-tetrahydrocannabinol, 334 Deltoid injection site, 394f Deltoid trigger point, 571f Dementia, 687 aging and, 702 confusion versus, 704t definition of, 675 Demerol; see Meperidine Depakene; see Valproic acid

Depakote; see Divalproex; Valproic acid Dependence addiction versus, 434 definition of, 50, 162, 429 HIV and, 567 in infant, 631 psychologic, 50, 173-174 substance, 429 Depolarization definition of, 16 transduction of pain and, 18 Depression alcohol addiction and, 436 as cause of pain, 48-49 chronic pain and, 499 definition of, 468 respiratory; see Respiratory depression Dermal anesthesia, iontophoresis for, 377-378 Dermatomes, 217f definition of, 363 herpes zoster and, 562 intraspinal anesthesia and, 221-222 Desipramine, 305t, 306t as adjuvant analgesic, 307 breast feeding and, 623-624 for child, 341t dosage of, 343t indications for, 310, 343t patient education about, 346-347t Desyrel; see Trazodone Determination stage of drug treatment, 448 Detoxification, 441-442 alcohol, 458 opioid, 459t protocols, 456t, 458t, 459t Dexamethasone, 305t cluster headache and, 556t high- and low-dose, 313 indications and dosages of, 343t migraine and, 555t spinal cord compression and, 339-340 Dexedrine; see Dextroamphetamine Dexmedotomidine, 305t Dextroamphetamine, 305t as adjuvant analgesic, 314-315 for child, 341t indications and dosages of, 344 morphine with, 339 Dextromethorphan, 305t neuropathic pain and, 321t, 328-330 Dezocine characteristics of, 189 equianalgesic doses of, 242t DHE, migraine and, 554t Diagnostic and Statistical Manual of Mental Disorders drug dependence and, 435 psychogenic pain and, 49 substance abuse and, 435 Diarrhea in HIV infection, 567

Diary headache, 551 pain relief, 200 Diatheses, bleeding, 138 Diazepam elderly and, 698, 699t, 700 equisedating doses of, 656t morphine with, 335 as muscle relaxant, 327, 328 musculoskeletal pain and, 327t opioid with, 499 pregnancy and, 615 procedural analgesia and, 381, 385t Diclofenac cost of, 141, 142 dosage of, 139t perioperative, 145-146 Diet in Crohn's disease, 598 Diflunisal antipyretic effect of, 144 cost of, 141, 142 dosage of, 139t Dihydroergotamine cluster headache and, 555t medication withdrawal and, 559 migraine and, 554t Dilantin; see Phenytoin Dilaudid; see Hydromorphone Diphenhydramine, 695 Diphosphonate, 325; see also Biphosphonate Diprivan; see Propofol Discharge from hospital chronic pain and, 505 subcutaneous continuous infusion and, 212 Discomfort, reducing, 390t Disease model of addiction, 431-432 Displacement, catheter, 233 Distraction, 412-417 benefits and limitations, 413t for brief pain episodes, 414t indications for, 413-414 labor and delivery and, 617 music for, 415t picture descriptions for, 417t procedural pain management and, 389-390 sing and tap rhythm for, 415t strategies for, 414-417 Distress, reducing, 390t Distress Scale for Ventilated Newborn Infants (DSVNI), 645-647, 646t, 650 new scoring system, 647t Distribution of drug in elderly, 687, 688 Divalproex, 305t indications and dosages of, 342t Documentation of infusion, 78-82 opioid and, 272 for outpatient, 82, 84 Dolobid; see Diflunisal Dolophine; see Methadone

Dopamine pathway, 434f Dopamine receptor, 333 Dorsal column stimulation, 584 Dorsogluteal injection site, 393f Dosage for anticonvulsant, 324 of antidepressant, 310-311 ATC dosing and, 175 ceiling; see Ceiling analgesia for elderly, 695 epidural analgesia in child and, 238 equianalgesic for infant, 655 for nonopioids, 133t for opioids, 174, 240-243 phenobarbital and, 458 of local anesthetic, 320 of nonsteroidal antiinflammatory drugs adverse effects and, 147-148 examples of, 139t nurse-activated dosing and, 177 opioid in opioid-naive patient, 250, 252t rectal, 204-205 starting, 240-246 tolerance and, 171-173 patient-controlled analgesia and, 175-177; see also Patientcontrolled analgesia phenobarbital withdrawal equivalents, 458 PRN dosing and, 175 rescue dose and, 244-246 switching opioids and, 257 titration of; see Titration of dose Double blind study, 302 Doxepin, 305t, 306t as adjuvant analgesic, 307 indications and dosages of, 343t tension headache and, 555t D-Penicillamine, arthritis and, 526 DPT for procedural analgesia, 380 Dressing epidural analgesia in child and, 237 wound, 593-594 Drug Enforcement Agency, 431 Drug tolerance, addiction versus, 433-434 Drug-receptor interaction, 165-166, 165f, 166t, 167t absorption, 168f Drugs addictive classes, 432t effects of abuse, 433t Drug-seeking behavior, 50-52, 429 addiction versus, 434-435 Drug treatment major models, 442t twelve steps, 433t Dry mouth, 308-309 DSM-IV, 36 DSVNI; see Distress Scale for Ventilated Newborn Infants Duraclon; see Clonidine Duragesic; see Fentanyl

Dural puncture, 232 Dyclone; *see* Dyclonine hydrochloride Dyclonine hydrochloride, topical, 372 Dysesthesias continuous, 302, 317*t* elderly and, 698 lancinating, 321*t* paroxysmal, 321*t* Dysesthetic pain syndrome, 606 Dyspnea, nebulized opioid and, 203 Dystocia, 609 Dystrophy, reflex sympathetic, 581–584, 582*f*

Е

Education, patient acetaminophen and, 152 about adjuvant analgesics, 346-353 desipramine and, 346-347 gabapentin and, 350-351 mexiletine and, 352-353 nortriptyline and, 348-349 cancer-related pain and, 541 chronic pain and, 494, 504, 506-507 cold and heat and, 410 materials, 274t for "new" pain relievers, 345 nondrug treatment and, 405 nonsteroidal antiinflammatory drugs and, 152 about opioid analgesic, 272-292 addiction and, 275-276 checklist for, 273 fentanyl patch and, 277-278 hydromorphone and, 279-280 morphine and, 281-286 oxycodone and, 287-290 patient-controlled, 291-292 resources for, 274 pain care committee's role in, 737 pain management guidelines and, 123, 125, 126-127 pain rating scales and, 67f, 74 procedural pain management and, 365-366 resource materials, 274t subcutaneous continuous infusion and, 212 Education, professional lack of, 4-5 need for, 10 pain care committee and, 730, 734, 736-737 resources for, 6-8t Efficacy definition of, 162 of opioid, 170-171 Ehlers-Danlos syndrome, 543-545 distribution of chronic pain, 544f Elavil; see Amitriptyline Elderly patients, 674-706 abuse of, 706 acute pain in, 677-678 adjuvant analgesics for, 695-698 age classifications for, 677 over age 100, 677f

Elderly patients-cont'd alcohol abuse in, 705-706 assessment of, 686-687 cancer-related pain in, 678-679 caregiver role, 685t probability of invasive, 678t care settings for, 679-686 chronic nonmalignant pain in, 679 confusion, 704t cognitive impairment in, 701-705 frail and debilitated, 700-701 inappropriate medication use in, 692-693, 699-700, 699t mental state of, 703t memory impairment in, 705 misconceptions about, 675-676t nondrug pain treatment in, 700 nonmalignant conditions, 679t nonopioid analgesics for, 689-691 nonsteroidal antiinflammatory drugs in adverse effects of, 689t alternative approaches, 690t central nervous system effects, 138 dosages, 142 ketorolac, 146 long-term use, 689t opioid analgesics for, 691-695 physical abuse of, 706 physiologic changes in, 687-689 polypharmacy in, 698-699 resources for, 684-685t shingles and, 561-562 surgery types, 678t Electric stimulator for multiple sclerosis, 603 Electromyography for peripheral neuropathy, 577 Elimination of drug in elderly, 687, 688-689 Emergency department cancer patient and, 542 chronic pain and, 473-474 Ehlers-Danlos syndrome and, 545 frequent use of, 51, 52, 53 nondrug pain treatment and, 423 sickle cell disease and, 587 Emergency treatment of respiratory depression in infant, 655 EMLA, 305t as adjuvant analgesic, 331 adverse effects of, 332 characteristics of, 373-377 circumcision and, 637 guidelines for, 375t for infant, 656-657, 664-665 lidocaine, 375t prilocaine, 375t for procedural pain, 369t Empathy in drug treatment, 449 Endocrine effects of pain, 23-25 Endogenous opioid composition and function of, 165 definition of, 16 modulation of pain and, 22-23 Endorphin, 17t, 164t

End-stage renal disease, 135-136 Enkephalin misconceptions about, 17t, 164t modulation of pain and, 22-23 Enteric-coated aspirin, 149 gastric injury and, 137 Enterocolitis, necrotizing, 660 Enzyme metabolites and, 169 nonsteroidal antiinflammatory drugs and, 130 Epidural analgesia, 213-239 benefits of, 4 bioavailability and, 220-222 breast feeding and, 623 cancer-related pain and, 541 catheter for. 218f documentation about, 82 location of, 248 removal of, 236 cesarean section and, 622-623 characteristics of drugs for, 195t in child, 236-239 clonidine for, 229, 231, 315, 336, 337t cognitive function and, 29 combined, 231 complications of, 232-236 drug delivery and, 214-220 effectiveness of, 25 elderly and, 694 cognitive impairment and, 701-702 fentanyl and, 225 gastrointestinal function and, 27-28 guidelines for, 215 hydromorphone and, 225-227 hypercoagulability and, 25-26 immune system and, 29 ketamine for, 338 labor and delivery and, 620 local anesthetics and, 227-229 muscle protein synthesis and, 25 methadone and, 227 misconceptions about, 214t morphine and, 222, 224-225 in opioid-tolerant patient, 260-261 pancreatitis and, 581 patient education about, 366 patient selection for, 215 patient-controlled; see Patient-controlled analgesia pediatric dosage and care, 238t preemptive, 120-121 respiratory effects and, 26 side effect reduction, 254-255t spinal anatomy and, 213-214 switching to intravenous analgesia from, 257-258 unwanted effects of, 230-231 Epidural spinal cord compression, 539 Epinephrine local anesthetic toxicity and, 368 modulation of pain and, 23 in topical mixtures, 373, 374t

Episiotomy pain, 622 Equanil; see Meprobamate Equianalgesic dosage for infant, 655 for nonopioids, 133t for opioids, 174, 240-243, 241-243t phenobarbital and, 458 Ergotamine cluster headache and, 555t migraine and, 553, 554t withdrawal from, 559 Esophageal ulcer in HIV infection, 567 Estrogen replacement therapy, 575 Ethanol as adjuvant analgesic, 334-335 Ethical issues of placebo use, 55 Etodolac brand name of, 138 cost of, 141 dosage of, 140, 140t renal effects of, 138 ETOH, addiction to, 432 Eutectic mixture of local anesthetics; see EMLA Excedrin Aspirin Free, 148t Excedrin Extra Strength, 149t Exercise chronic pain and, 503, 505 fibromyalgia and, 549 osteoporosis and, 575 Extrapyramidal effect of neuroleptics, 333 Extremely-low-birth-weight infant, 627 Extremity arthritis pain and, 523-525, 524f, 525t elderly and, 679t reflex sympathetic dystrophy and, 581-584 Eye anesthesia for, 372-373 cluster headache and, 558 Ehlers-Danlos syndrome and, 543 surgery on, 678t zoster ophthalmicus and, 562

F

Faces pain rating scale, 63, 64-65f, 67 cultural differences and, 98 Facial Action Coding System, 641 Facial expression of pain in infant, 633f, 634f Facial pain, temporomandibular, 588-592, 589f Facility, pain classification of, 514 inceased numbers of, 10-11 Factitious disorder, 36 Failed back syndrome, 496 Family addiction and, 275-276t, 438 as barrier to pain management, 10 elderly and, 684, 686 of infant, 668 information for, 126-127t nondrug treatment and, 402 pain rating scales and, 67f, 74

Family-controlled analgesia, 177 Fatigue, chronic, 597 Feedback in drug treatment, 449 Felbamate, 322 adverse effects of, 323 Feldene; see Piroxicam Femoral head, aseptic necrosis of, 539 Fenamate, 139t Fenoprofen, 139t Fentanyl absorption pathway, 207f characteristics of, 181-182 dosage, 209t elderly and, 691 cognitively impaired, 702 equianalgesic doses of, 241t infant and, 654*t*, 655, 667 intraspinal, 222, 223, 225 labor and delivery and, 619 mental status and, 267 nebulized, 203 for opioid-naive adult, 225t oral transmucosal, 201-203, 202f, 207f, 209t for procedural pain, 378, 379t as rescue analgesic, 245, 245t overdose of, 269 patient information about, 277-278 patient-controlled analgesia with in child, 255t in opioid naive patient, 252t preemptive analgesia with, 120-121 pregnancy and, 614 procedural analgesia with, 379t rib fracture and, 26 solubility of, 169 switching from, 257-258 to morphine, 208t transdermal, 206-209, 207f Fetal heart rate, 621 Fetus drug effects on, 609-615 pain in, 635-636 Fever in HIV infection, 567 Fiber, nerve, 577 Fibromyalgia, 545-550 alternative treatment for, 690t assessment of, 548 classification criteria, 547t description of, 545-547 pain management in, 547-549 tender points, 546f Fibrosis, radiation, 540t Fifth vital sign, 3, 731,735f Fiorinal, tension headache and, 557 First pass effect of opioids, 167 Flare of pain, in fibromyalgia, 547-548 of rheumatoid arthritis, 524-525 Flecainide, 318 Flexeril; see Cyclobenzaprine

Flow sheet for pain management, 78-86 Fluid therapy during labor and delivery, 621 Flumazenil, 381 procedural analgesia with, 385t Fluoxetine, 305t as adjuvant analgesic, 307 indications and dosage of, 343t Fluphenazine, 305t Flurazepam, 698, 699t Flurbiprofen, 139t FMS; see Fibromyalgia Food and Drug Administration pregnancy risk classifications, 609-610, 611 Formulary analgesic reference guide, 737t Fox Chase Cancer Center, 274 Fracture osteoporosis and, 573f, 574 rib, fentanyl for, 26 Frail elderly, 700-701 "Frequent flyer," 51, 52, 53 Full agonist; see Mu agonist

G

GABA agonist; see Baclofen GABAergic drug, 305t Gabapentin, 305t adverse effects of, 323 for child, 341t dosage of, 324, 342t elderly and, 697 indications for, 342t neuropathic pain and, 321t overview of, 322 patient education about, 350-351t reflex sympathetic dystrophy and, 583 trial of, 324 Gain, secondary, 41-42 Gallium nitrate, 325 for bone pain, 325, 326 Gamma-aminobutyric acid, 22-23 Ganglion blockade, 583-584 Gastrointestinal bleeding in elderly, 689-690 Gastrointestinal disorder corticosteroid and, 312, 698-699 Crohn's disease and, 597-598 Ehlers-Danlos syndrome and, 543 elderly and, 679t, 689-690, 698-699 harmful effects of pain on, 27-28 malignant bowel obstruction and, 326-327 nonsteroidal antiinflammatory drugs and, 130, 135, 136-137 perioperative bleeding and, 145-146 opioid withdrawal in infant and, 632 opioids causing, 261, 262-263t pancreatitis and, 579-581 Gastrointestinal surgery in elderly, 678t Gastroprotective therapy, 137 Gel pack, cold, 409f Gender pain assessment and, 57 pain in infant and, 649-650

General anesthesia, procedural, 386-389 Generic name of nonopioid drugs, 138t Genetic disorder, sickle cell disease as, 585-588 Genitourinary system, effects of pain on, 27 Gingival administration of opioids, 201 Glucocorticoid; see Corticosteroid Glucose-6-phosphate dehydrogenase deficiency, 376 Glutamate in pain transmission, 22 Gold salts for arthritis, 526 Goody's Extra Strength, 149t Gout, 690t GR90291, 190 Graphic rating scale, 62-63 Graphic vital signs record, 735 Gross motor movement in infant, 634 Group drug therapy, 446 Growth hormone, 24 Guanethidine, 584

Η

Half-life definition of, 162 of opioid, 169-170 Hallucination, opioids causing, 263t Hallucinogen, 432t, 433 Haloperidol in elderly, 702 Handheld vibrator, 411-412 Harmful effects of pain, 3-4, 23-32, 24t H₂-blocker, 131t ulcer prevention and, 137 Head and neck pain elderly and, 679t mucositis and, 601-602 myofascial, 571f Headache, 550-560 alcohol withdrawal and, 457 assessment of, 550, 552 breast feeding and, 624 caffeine-containing analgesics and, 150 cluster, 555-556t, 557-559 description of, 550 diagnosis of, 552f, 557f, 558f diary about, 551t gel pack for, 409f medications for, 554-556t migraine, 552-556 in child, 143t nonsteroidal antiinflammatory drugs for, 132 postdural puncture, 232 pregnancy and, 615 rebound, 559t tension-type, 555t, 557-558 Health care professional expectations about pain of, 44-46 infant and, 661-663, 668 nondrug treatment and, 402-403 nurse certification of, 11, 13 expectations about pain of, 44 pain resource, 5

Health care professional-cont'd nurse-cont'd role of, 125, 128 undertreatment of pain and, 4-5, 9-10 Heart antidepressant effects on, 309-310 elderly and, 698 Heart surgery elderly and, 679t in infant, 662 Heartburn in pregnancy, 616 Heat, 406-411 arthritis and, 526 contrast bathing, 411t fibromyalgia and, 549 patient use of, 410t Hematologic disorder, 135, 138 perioperative, 145-146 Hematoma, epidural, 234-236 Hemodynamics clonidine and, 336 epidural local anesthetics and, 231 Hemoglobin elderly and, 690 sickle cell disease and, 585 Hemophilia, 598-599 HIV infection in, 599 nonsteroidal antiinflammatory drugs and, 138, 144 Hepatic impairment acetaminophen causing, 134-135, 151-152 tramadol and, 191 Heroin, 432t addiction to, 9, 51, 53, 433 Herpes zoster, 561-564 chronic pain and, 31 elderly and, 696 Hip replacement, 252 Histamine blocker elderly and, 699 nonsteroidal antiinflammatory drugs and, 131t ulcer prevention and, 137 Histoacryl blue, 395 History, analgesic, 123, 124 HIV; see Human immunodeficiency virus peripheral neuropathy in, 576 Home care for cancer patient, 542 Ehlers-Danlos syndrome and, 545 for elderly, 683-686 sickle cell disease and, 587 Hormone osteoporosis and, 575 pain and, 24 Hospice care, 681 creation of, 10-11 Hospice nurse certification, 13 Hospitalization of elderly, 679-681 musculoskeletal effects of, 28 5HT1 receptor, 553

Human immunodeficiency virus (HIV) infection, 564-568 pain sources and locations, 566f peripheral neuropathy and, 576 Humoral head, aseptic necrosis of, 539 Hurricane; see Benzocaine Hydrocodone, 116, 134 characteristics of, 179t, 182 in combination fixed, 116-117 opioid-nonopioid, 134 equianalgesic dosage of, 133t, 240, 241t, 243 as fixed combination, 116-117 pregnancy and, 614 Hydromorphone as addictive drug, 432t bioavailability of, 169 characteristics of, 179t, 182-183 elderly and, 691 equianalgesic doses of, 241t intraspinal, 223, 225-226 mental status change and, 267 nebulized, 203 for opioid-naive adult, 225t, 252t patient information about, 279-280 patient-controlled analgesia with, 252t, 265 cardiovascular effects of, 25 in child, 255t sickle cell disease and, 587 solubility of, 169 transdermal fentanyl and, 209t Hydrophilic, 162 Hyperalgesia, 429 Hypercoagulation as stress response, 25 Hypersensitivity, aspirin, 144 Hypnosis for burn pain, 531 Hypnotic as addictive drug, 432t elderly and, 699t Hypotension antidepressants and, 308 in elderly, 697 labor and, 621 Hypoxemia, in elderly, 701 Hytrin; see Terazocin

I

Iatrogenic risk, 474 Ibupren; *see* Ibuprofen Ibuprofen caffeine with, 316 for child, 143*t* in combination drugs, 134 dosage of, 139*t*, 143*t* elderly and, 690 gastrointestinal side effects of, 136–137 overdose of, 152 patient information sheet for, 153–154*t* tension headache and, 557–558 Ibu-Tab; *see* Ibuprofen Ileus as stress response, 27-28 Illegal drug, 438-439 Illness Behavior Questionnaire, 519 Imipramine, 305t, 306t as adjuvant analgesic, 306-307 for child, 341t indications and dosages of, 343t Imitrex, Sumatriptan Immune deficiency chronic fatigue and, 597 fatigue and, 597 HIV infection and, 597 Immune system effects of pain, 29-30 Immunization, 638-639, 638t Immunocompetence, 29 Implantation of electric stimulator, 603 Incisional pain, 409f Indicator, 712 Indinavir, 567 Individualization of analgesic regimen, 121-123 Indocin; see Indomethacin Indomethacin bone formation and, 147 dosage of, 139t pediatric, 143t, 654 elderly and, 699t Infants, 629-669 abstinence syndrome in, 609 anesthesia dosage, 657t assessment of, 639-640, 649-651 circumcision in, 371, 636-637 consequences of pain in, 631-635 definition of pain in, 628 developmental care, 658t, EMLA in, 376 infusion rates, 654t measurement of, 640-649 memory of pain in, 30 misconceptions about, 627t, 628-631 opioid weaning flowsheet, 632t operational definitions, 648t pain during birth in, 635-636 pain management in algorithm for, 662f-663f CRIES measurement score, 646t DSVNI, 646t, 647t distress scale for ventilated facial expressions, 633f guidelines, 664–667t health care professional's role in, 661-663, 668 immunizations, 638t multidimensional assessment, 650t multidimensional measures, 650t minimizing, 661t nonpharmacologic, 658-661 parents' role in, 667 pharmacologic, 651-658, 656t, 657t PIPP, 645t protocol for, 664-667 unidimensional measures, 643t

Infants-cont'd preterm, 609, 637-638 interventions, 662-663t procedural pain in, 638-639 respiratory depression, 655t silent cry, 634f undertreatment of pain in, 628-631 Infection human immunodeficiency virus, 564-568, 566f, 576 intraspinal analgesia and, 234, 235t Lyme disease and, 600-601 masking of, 144 opportunistic, 567 varicella-zoster, 561-564, 561f Inflammation arachnoiditis and, 596 arthritis causing, 523-525, 524f, 525t Crohn's disease and, 597-598 mucositis and, 601-602 pancreatic, 579-581 wound pain and, 592-593 Inflammatory mediator, 130 Information, patient/family, 126-127t Informed consent, 365 Infusion flow sheet for, 78-82 intraspinal, 220; see also Intraspinal analgesia lidocaine in, 339, 370-371 local anesthetic, 317, 320 needle placement, 211f of neurotoxic agent, 233 opioid, 211 in opioid naive patient, 250-251 subcutaneous continuous, 211t, 212-213t remifentanil, 190 Inhalation, nitrous oxide, 388-389 Initial pain assessment, 59-62 Injections fibromyalgia and, 549 intramuscular, technique for, 391, 392-395f, 394-395 local anesthetic, 368-371 low back pain and, 600 nerve block; see Nerve block of neurotoxic agent, 233 osteoporosis and, 575 painful, 370-371 reducing discomfort, 392t trigger point, 570 Injury infant and, 638-639 needle or catheter, 233 spinal cord, 606-607 wound pain and, 592-595 Innovar for labor and delivery, 618 Inpatient drug treatment and, 454-456, 461t Ehlers-Danlos syndrome and, 545 oral patient-controlled analgesia for, 199 sickle cell disease and, 587

Institutional barriers to pain management, 713 Institutional commitment to pain management, 715-738; see also Pain management Institutional needs assessment tool, 724-726 Insulin, 24 Intensity of pain initial assessment of, 59 opioid analgesic and, 191-192 Interaction drug-receptor, 165-166, 165f, 166t, 167t opioid, 192-193 Intercostal nerve, 535t Interdisciplinary pain care committee, 713, 715-737; see also Pain care committee International Association for the Study of Pain, 5 classifications of pain facilities, 514 clinical practice guidelines of, 7 education resources of, 6 founding of, 11 infants and, 628 malingering and, 41 International Headache Society, 550, 552 Internet resources, 745-750 Interstitial Cystitis Association, 517 Interviewing, motivational, 446-450 Intestine, Crohn's disease of, 597-598 Intolerance, aspirin, 144 Intraarterial opioid administration, 196t Intracerebroventricular administration, 196t Intracranial pressure, corticosteroids for, 312 Intractable migraine, 556 Intractable pain treatment act, 9 Intramuscular administration avoidance of, 121 inappropriate, 54 of opioid, 209-210 reducing pain of, 391-394 Z-track, 391, 392 Intranasal administration, 195t, 203 definition of, 162 effectiveness of, 25 midazolam and, 381 Intraoral appliance for temporomandibular dysfunction, 590 Intrapleural analgesia for pancreatitis, 581 Intraspinal analgesia, 213-239; see also Epidural analgesia bioavailability and, 220-222 catheter removal and, 236 in child, 236-239 clonidine and, 229, 231 combined, 231 complications of, 232-236 drug delivery and, 214-220 for elderly, 693-694 fentanyl and, 225 guidelines for, 215 hydromorphone and, 225-227 labor and delivery and, 619-621 local anesthetics and, 227-229 methadone and, 227

Intraspinal analgesia-cont'd morphine and, 222, 224-225 spinal anatomy and, 213-214, 216-217f use of, 215t Intrathecal administration, 196t, 213-239; see also Intraspinal analgesia for labor and delivery, 619-620 Intravenous administration; see also Infusion lidocaine, 338-339 of opioid, 195t, 211, 213 cancer-related pain and, 541 methadone and, 186 oral analgesia after, 258-259 oxymorphone and, 187 for procedural pain, 378, 379t needle placement, 211f patient-controlled; see Patient-controlled analgesia remifentanil and, 190 Invirase; see Saquinavir Involution of uterus, 609 Ion, transduction of pain and, 18 Iontophoresis, 377-378 Irritation, gastrointestinal, 136 Isometheptene, 554t Isoptin; see Verapamil Isoxsuprine, 699t

J

Jaw pain, 588–592
JCAHO; see Joint Commission on Accreditation of Healthcare Organizations
Joint

arthritis of, 523–525, 524f, 525t
elderly and, 679t
temporomandibular, 588–591

Joint Commission on Accreditation of Healthcare Organizations (JCAHO), 3, 730, 733
Journals on pain management, 5, 8, 738

K

Kangaroo care, 660 Kappa opioid receptor site, 166 Ketamine, 305t for crescendo pain, 336-338 neuropathic pain and, 321t, 328-330 procedural analgesia with, 386-387, 387t Ketoprofen dosage of, 139t overdose of, 152 Ketorolac for acute pain, 132 adverse effects of, 146t, 147 for child, 143t, 144 dosage of, 139t, 143t elderly and, 690-691 oral administration of, 145 parenteral administration of, 133, 144 in child, 144 perioperative use of, 146 for postoperative pain, 145

Ketorolac—cont'd preoperative use of, 133, 144 procedural analgesia with, 380–381 renal function and, 146–147 for surgical patient, 147 in terminally ill patient, 134 Kidney damage from acetaminophen, 135–136 Kindling effect, 433–434 Klonopin; *see* Clonazepam Knee replacement, 694

L

LAAM, 443-445 Label chronic pain and, 492 Labeling addiction as, 51-52 Labor and delivery, 609-623 benzodiazepines in, 618-619 buprenorphine avoided in, 112 clonidine for, 336 controversies regarding, 621 epidural meperidine ion, 226 lidocaine for, 370 local anesthetics in, 618 nondrug methods during, 617-618 opioids in, 619 pain in infants during, 635-636 parenteral pain relief during, 619 patterns of labor pain, 617 postpartum pain and, 621-622 regional techniques during, 619-621 Laceration, atraumatic suturing of, 395 Lactation, 623-624 AAP classifications, 623t Ladder, WHO analgesic, 115-119, 117f cancer-related pain and, 539, 541 Lamotrigine, 305t, 322 adverse effects of, 323 Lancinating pain, 302 adjuvant analgesics for, 109t, 320-324 anticonvulsants for, 697 herpes zoster and, 562 Legal issues with placebo use, 55 LET, 373, 374 Levator scapulae trigger point, 571f Levo-alpha-acetylmethadol, 443-445 Levo-Dromoran; see Levorphanol Levorphanol characteristics of, 179t, 183 elderly and, 692 equianalgesic doses of, 241t Library, pain management, 738 Lidocaine buffered, 370, 371t bupivacaine with, 368 burn injury and, 530-531 circumcision and, 636-637 cluster headache and, 559 elderly and, 698

Lidocaine-cont'd in EMLA; see EMLA infant and, 656 injectable, 368-371 intraspinal, 228 labor and delivery and, 618 migraine and, 555t neuropathic pain and, 318 parenteral, 338-339 for procedural pain, 369t topical, 331-332, 372 in topical mixtures, 373, 374t, 375t Lifestyle in pain assessment, 58 Ligament, round, 615 Limb pain, phantom, 603-604 Limbitrol; see Chlordiazepoxide Lioesal; see Baclofen Lipid solubility of opioids, 169 Lipophilic, definition of, 162 Lipophilic opioid pregnancy and, 614 transmucosal, 201 Listening, active, 416f Lithium for cluster headache, 556t Liver acetaminophen and, 134-135, 151-152 opioid analgesia and, 192 Local anesthetic; see also Lidocaine as adjuvant analgesic, 316 adverse effects of, 318-319 for child, 239, 341t elderly and, 694, 699t epidural in child, 239 muscle protein synthesis and, 25 unwanted effects of, 230-231, 230t eutectic mixture of; see EMLA examples of, 305t gastrointestinal function and, 27 guidelines, 367t, 369-370t indications and dosages of, 344 infant and, 656 intraspinal, 227-229 labor and delivery and, 618, 620 low back pain and, 600 mechanism of action of, 318 neuropathic pain and, 317-320 parenteral, 338-339 perioperative/postoperative, 145 pregnancy and, 614 procedural pain and, 367-378 guidelines for, 367t injectable, 368, 370-371 iontophoresis and, 377-378 topical, 371-377 toxicity of, 368 Location of pain, 59 Lodine; see Etodolac Long-term care facility, 681-683 selection of, 682-683t

Loracet, 134 Lorazepam burn injury and, 529t equisedating doses of, 656t infant and, 655 procedural analgesia and, 381, 385t Lortab; see Hydrocodone Low back pain, 599-600 Low-birth-weight infant, 627 LSD, addiction to, 433 Ludiomil; see Maprotiline Lumbar epidural analgesia, 222 labor and delivery and, 620 Lumbar plexus pain, cancer-related, 535t Lumbosacral plexus, radiation fibrosis of, 540t Lumbosacral vertebral tumor, 536t Lung cancer, 532t age and, 678t Lyme disease, 600-601

Μ

Magnesium, migraine and, 553 Magnesium salicylate bleeding disorder and, 144 dosage of, 139t opioid equivalent, 133t nonprescription brands of, 151t Maintenance stage of drug treatment, 448 Major histocompatibility complex in Crohn's disease, 597 Malignancy, 531-543; see also Cancer-related pain Malignant bowel obstruction, 326-327, 327t Malingering, 36, 41 Maprotiline, 305t, 306t, 307 Marcaine; see Bupivacaine Marijuana addiction, 432t, 433 Masking of infection, 144 Massage, 420-421 fibromyalgia and, 549 Mastectomy, 604 Maternal hypotension in labor, 621 Maternal-placental-fetal drug transfer, 610-611, 613f Maximally Discriminative Facial Coding System, 641 Mayday Pain Resource Center, 6 McGill Pain Questionnaire, 75, 577 Measurement of pain in infant, 639-651, 643t, 650t Mechanical ventilation, weaning from, 271-272 Meclofenamate, 139t Meclomen; see Meclofenamate Mediator, inflammatory, 130 Medical model of addiction, 431-432 Medical record pain management audit, 727 Medication, patient information about, 277-292t Mefenamic acid, 139t Membrane potential, resting, 18 Memory loss, 705 Memory of pain in infant, 630-631 Meningoencephalitis, 562 Menopause, osteoporosis and, 575 Mental disorder, psychogenic pain in, 48-50

Mental status aging and, 702-704, 704t alcohol withdrawal and, 457 Mini-Mental State examination and, 702, 703 opioids causing change in, 263t, 266-267 pain effects on, 28-29 Mepergan, 618 Meperidine breast feeding and, 623 characteristics of, 179t, 183-185 elderly and, 692-693 equianalgesic dosages of, 133t, 241t intraspinal, 223, 226-227 labor and delivery and, 618 misconceptions about, 184t pancreatitis and, 581 patient-controlled analgesia with, 252t pregnancy and, 614 procedural analgesia with, 379t, 380 sickle cell disease and, 587 switching from, 255-256 Mepivacaine, intraspinal, 228 Meprobamate in elderly, 699t Mescaline addiction, 433 Meta-analysis double blind study, 302 Metabolic disorder fibromyalgia and, 547 opioid withdrawal in infant and, 632 Metabolic effects of pain, 23-25 Metabolism in elderly, 687, 688 Metabolite definition of, 162 opioid, 169 of morphine, 691 pregnancy and, 614 of remifentanil, 190 Methadone addiction and, 432t, 433, 443-445 cancer-related pain and, 541 characteristics of, 179t, 185-186 elderly and, 692 equianalgesic doses of, 242t intraspinal, 227 morphine versus, 186 oral administration of, 185, 185t pregnancy and, 614 transmucosal of, 201 Methemoglobinemia, EMLA and, 332, 376 Methocarbamol, 305t elderly and, 700 as muscle relaxant, 327, 328 Methotrimeprazine, 305t dosage of, 334 indications and dosages of, 344 Methylphenidate, 305t as adjuvant analgesic, 314-315 for child, 341t indications and dosages of, 344 Methylprednisolone, 305t

Methylsergide cluster headache and, 556t migraine and, 555t Metoclopramide mechanism of action of, 333 migraine and, 554t rebound headache and, 559 Mexiletine, 305t adverse effects of, 318-319 for child, 341t elderly and, 698 herpes zoster and, 562 indications and dosages of, 344 neuropathic pain and, 318, 321t patient education about, 352-353t peripheral neuropathy and, 579 Mexitil; see Mexiletine M3G, 180-181, 181t M6G, 180-181, 181t Midazolam equisedating doses of, 656t infant and, 655 morphine with, 335 procedural analgesia and, 381, 385t Midrin, 554t Migraine headache, 552-556, 552f breast feeding and, 624 in child, 143t Migration, catheter, 233 Millon Clinical Multiaxial Inventory, 519 Miltown; see Meprobamate Mini-mental state, 703 Minipress; see Prazosin Minnesota Multiphasic Personality Inventory-2, 519 Misoprostol elderly and, 690 nonsteroidal antiinflammatory drugs and, 131t ulcer prevention and, 137 Mitochondria in fibromyalgia, 547 Modified Behavioral Pain Scale, 641 Modulation of pain, 16, 19t antidepressants and, 309f definition of, 106f illustration of, 21, 107f, 319 local anesthetics and, 319f process of, 22-23 Monitoring of antidepressant therapy, 311 by pain care committee, 733-734 Monoamine oxidase inhibitor, 183 Mononeuropathy, 19t Moral model of addiction, 431 Morbidity, 16 Morphine addiction to, 432t, 433 benzodiazepines with, 335 blood levels of, 181t buccal administration of, 201 burn injury and, 529t, 530 cancer-related pain and, 541

Morphine-cont'd characteristics of, 179t, 180-181 dextroamphetamine with, 339 in elderly, 691 cognitively impaired, 701, 702 equianalgesic doses of, 241t gastrointestinal function and, 27-28 immune system and, 29 infant and, 654-655, 654t, 666 intraspinal, 222-225 intravenous administration of, 211 ketamine with, 338 mental status change and, 267 metabolites of, 169 methadone versus, 186 nebulized, 203 for opioid-naive adult, 225t oral, 197-198 patient information about, 281-286t patient-controlled analgesia with in child, 255 in opioid naive patient, 252t postoperative, 250-251 pregnancy and, 614 procedural analgesia with, 379t sickle cell disease and, 587 switching from, 256-257 transdermal fentanyl and, 208-209, 209t transmucosal administration of, 201 Morphine-3-glucuronide, 691 Morphine-6-glucuronide, 691 Morphine-like drug; see Mu agonist Mortality, 16 Motivational approaches to drug treatment, 448-450 Motivational interviewing, 446-450 Motor deficit with epidural local anesthetics, 230t Motor vehicular accident by elderly, 698 Motrin; see Ibuprofen Mouth mucositis and, 601-602 temporomandibular dysfunction and, 588-592 Movement pain in infant and, 634 wound pain and, 593 MPS, 548 Mu agonist; see also Individual drug agonist-antagonist with, 112 characteristics of, 178-180, 180t codeine, 181 combination analgesics with, 116 comparison of, 113-114 definition of, 104, 162 examples of, 109t fentanyl, 181-182 hydrocodone, 182 hydromorphone, 182-183 levorphanol, 183 meperidine, 183-185 methadone, 185-186 morphine, 180-181

Mu agonist-cont'd oxycodone, 186-187 oxymorphone, 187 propoxyphene, 187-188 titration of, 122 Mu opioid receptor site, 166 Mucosa, gastric, 136 Mucositis, 601-602 Multidimensional Pain Inventory, 519 Multidimensional pain measure for infant, 642-649, 650, 651t Multidisciplinary pain care program for elderly, 680-681 Multigravida, 609 Multimodal, continuous analgesia; see Balanced analgesia Multiple sclerosis, 602-603 charting example, 492t Muscle, temporomandibular dysfunction and, 588-592 Muscle protein synthesis, 25 Muscle relaxant elderly and, 700 examples of, 305t, 327 misconceptions about, 303t osteoporosis and, 574 Musculoskeletal system adjuvant analgesics for, 327t Ehlers-Danlos syndrome and, 543-545 fibromyalgia and, 545-550 gel pack for injury to, 409f harmful effects of pain on, 27-28 postpolio syndrome, 604-605 tumor of, 533t Music active listening, 416f for distraction, 391t, 415, 416f in procedural pain management, 390 for relaxation, 421 Myelopathy, radiation, 540t Myocardial ischemia, 694 Myoclonus, opioids causing, 266 Myofascial pain, 489 syndrome, 568-572, 569t trigger points, 571f

N

Nabumetone bleeding disorder and, 144 dosage of, 140, 140t Nalbuphine characteristics of, 189 equianalgesic doses of, 242t labor and delivery and, 618 pregnancy and, 614 Nalfon; see Fenoprofen Nalmefene opioid overdose and, 269 procedural analgesia with, 379t, 380 Naloxone administration of, 269, 270t cancer-related pain and, 541-542 inappropriate use, 269 opioid overdose and, 269, 270

Naloxone-cont'd procedural analgesia with, 379t, 380 Naltrexone, 460-461 Naprosyn; see Naproxen Naproxen dosage of, 139t for child, 143t overdose of, 152 Naratriptan for migraine, 554t Narcotic, definition of, 104, 162, 429; see also Opioid analgesic Naropin; see Ropivacaine Nasal spray, 112 National Association of Orthopaedic Nurses, 55 National Hospice Organization, 11 National Institute of Arthritis, Musculoskeletal and Skin Diseases Information Clearinghouse, 517 National Institute of Drug Abuse, 430 National Institutes of Health, 274 National Neurofibromatosis Foundation, Inc., 517 National Vulvodynia Association, 517 Natural childbirth, 609 Natural killer cell, 29 Nausea and vomiting alcohol withdrawal and, 457 elderly and, 695 ergotamine withdrawal and, 559 migraine and, 553 opioids causing, 261, 262-265, 262t-263t Nebulized opioid, 195t, 203 Neck pain, myofascial, 571f Necrosis, aseptic, 539 Necrotizing enterocolitis, 660 Needle intraspinal, 214-220, 218f complications of, 233 subcutaneous infusion, 211t Needs assessment tool, 724-726 Nefazodone, 305t, 306t Neglect of elderly, 706 Nelfinavir, 567 Nembutal; see Pentobarbital Neonatal abstinence syndrome, 616-617, 631-632 Neonatal Facial Coding System, 641 Neonatal Infant Pain Scale, 644-645, 650 Neonatal intensive care unit, 637-638 Neonatal period, 627 Neonate; see also Infant abstinence syndrome in, 616-617 definition of, 627 EMLA in, 376-377 fentanyl in, 654t long-term effects of pain in, 634-635 memory of pain in, 30 morphine in, 654t surgery in, opioid for, 24-25 Nerve block cancer-related pain and, 541 chronic pain and, 510, 511 clonidine, 337t herpes zoster and, 563

Nerve block-cont'd in infants, 657t intraspinal opioid versus, 25 local anesthetic for, 367-378; see also Local anesthetic osteoporosis and, 575 pudendal, 621 subarachnoid space, 619-620 Nerve block clinic, 11 Nerve fiber, 577 Nerve root, arachnoiditis and, 596 Neuralgia definition of, 16, 302 postherpetic, 561-564, 561f Neuraxial opioid, 621 Neurochemical disorder, 547 Neuroleptic, 332-334 as adjuvant analgesic, 316-317 adverse effects of, 333 examples of, 305t indications for, 334 mechanism of action of, 333 Neuroleptic malignant syndrome, 333 Neurologic disorder Ehlers-Danlos syndrome and, 543 Lyme disease and, 601 migraine and, 553 multiple sclerosis and, 602-603 reflex sympathetic dystrophy and, 581-584 Neurolytic block, celiac plexus, 581 Neuron, afferent, 16 Neuronal "wind-up," 23 Neurontin; see Gabapentin Neuropathic pain, 19t, adjuvant analgesics for, 109t, 113 anticonvulsants and, 321-324 antidepressants and, 310, 317, 317t lancinating pain and, 320-324, 321t local anesthetics and, 317-320 baclofen for, 324 burn injury and, 530 cancer-related, 537, 538t, 541 characteristics of, 23 classification of, 19t definition of, 16, 162, 675 in elderly, 696, 699t anticonvulsants for, 697 herpes zoster and, 563 HIV and, 567 lidocaine for, 338-339 n-methyl-D-aspartate receptor blockers for, 328-330 peripheral, 16, 576-579, 577f rating scale for, 75, 76-77 wound, 592 Neurophysiologic adaptation in addiction, 452 Neuropsychologic toxicity of corticosteroid, 312 Neurotensin, 23 Neurotoxic agent, injection of, 233 prevention of intraspinal, 234t Neurotransmitter opioid receptors and, 165-166

Neurotransmitter-cont'd transmission of pain and, 22 Newborn; see Infant; Neonate Nifedipine, 305t Nipple pain, 622 Nitrous oxide burn injury and, 529t procedural analgesia with, 387t, 388-389 NMDA; see N-methyl-D-aspartate NMDA receptor antagonist, 305t as adjuvant analgesic, 317t neuropathic pain and, 321t, 328-330 N-methyl-D-aspartate as adjuvant analgesic, 317t definition of, 302 transmission of pain and, 22 Nociceptive pain, 18-23 cancer-related, 533, 537, 541 classification of, 19t definition of, 16 elderly and, 696 intraspinal anesthesia and, 222 modulation of, 21f, 22-23 nonsteroidal antiinflammatory drugs and, 130 perception of, 21f, 22 transduction of, 18, 21f, 22 transmission of, 20t, 21-22, 21f wound, 592-593, 593t, 594 Nociceptor, 16, 162 Nondrug pain treatments, 399-425 burn injury and, 530-531 for child, 421, 422t for childbirth, 617 in clinical practice, 421-425 cutaneous stimulation as, 405-417; see also Cutaneous stimulation distraction as, 412-417 for elderly, 700 for infant, 658-661 misconceptions about, 401t relaxation as, 417-421 role of, 400-405 selection of, 404t Nonmalignant pain cancer pain versus, 47-48 chronic; see Chronic pain Nonnarcotic; see Nonopioid analgesic Nonnutritive sucking, 659 Nonopioid analgesics, 105f; see also Acetaminophen; Aspirin; Nonsteroidal antiinflammatory drugs caffeine with, 316 in children, 142-148, 143t clinical considerations for, 108-110 comparison of, 114t definition of, 104, 130 dosing information, 133t, 138, 139-140t, 140-143, 142t for children, 143t elderly and, 689-691 generic and brand names, 138t indications for, 131-134, 133t

Nonopioid analgesics-cont'd infant and, 653-654 mechanism of action of, 130 misconceptions about, 131t opioid combined with; see Combination analgesic pain mechanism affected by, 108 perioperative/postoperative, 145 polypharmacy and, 304 selection of, 142t side effects, 134-138, 135t titration of, 122 trade and generic names of, 138t Nonprescription drug; see Over-the-counter drug Nonsteroidal antiinflammatory drugs (NSAIDs) for acute versus chronic pain, 138 adverse effects of, 145-148 analgesic action, 132f analgesic history and, 140 ankylosing spondylitis and, 596 antipyretic effect of, 144 arthritis and, 526 aspirin allergy and, 144 bleeding disorder and, 144 for bone pain, 326 breast feeding and, 142, 623 for child, 142-144 choice of, 110 clinical considerations for, 108-110 combination analgesics with, 116 cost of, 141 definition of, 104, 130 dosages, 139-140t frequency of, 140-141 guidelines for, 142 titration of, 141-142 drug combinations with, 148-150 elderly and, 689-691, 695, 698, 699t alternative approaches, 690t cognitively impaired, 704 long-term use, 689t examples of, 109t fibromyalgia and, 548-549 gastrointestinal function and, 27 hemophilia and, 599 indications for, 108-110, 131-134, 133t infant and, 654 mechanism of action of, 130 migraine and, 554t misconceptions about, 131t nonprescription, 148-150, 151t overdose of, 150-152 patient/family teaching about, 152, 153-158, 157-158t perioperative, 144-148, 146t metabolic response and, 24 pregnancy and, 142, 611, 613 procedural analgesia with, 380-381 response to, 140 routes of administration for, 110, 141 side effects of, 134-138 temporomandibular dysfunction and, 590

Nonsteroidal antiinflammatory drugs (NSAIDs)-cont'd transduction of pain and, 18 Norepinephrine, 368 Norflex; see Orphenadrine Normeperidine, 226 Norpramin; see Desipramine Norpropoxyphene, 169, 180t, 187, 192 North American Chronic Pain Association of Canada, 517 Nortriptyline, 305t, 306t as adjuvant analgesic, 307 breast feeding and, 623-624 for child, 341t indications and dosages of, 343t patient education about, 348-349t side effects of, 308 tension headache and, 555t Noxious stimulus, 16 NSAIDs; see Nonsteroidal antiinflammatory drugs Nubain; see Nalbuphine Nulliparity, 609 Numby Stuff, 377-378 Numerical rating scale, 63f, 65-75 cultural differences and, 98 definition of, 36 examples of, 68f-73f Numorphan; see Oxymorphone Nuprin; see Ibuprofen Nurse certification of, 11, 13 expectations about pain of, 44 pain resource, 5 role of, 125, 128 Nurse-activated dosing, 177 Nurse-based patient-controlled analgesia program, 742-743 Nursing admission assessment, 58 Nursing home, 675, 681-683

0

Obesity, respiratory complications and, 26 Obsessive compulsive disorder, 436 Obstetrics/gynecology Ehlers-Danlos syndrome and, 543 pregnancy and; see Labor and delivery; Pregnancy Obstruction, bowel, 326-327, 327t Occlusal therapy, 591 Occupational therapy in arthritis, 526 Octreotide malignant bowel obstruction and, 327, 327t pancreatitis and, 581 Ocular procedure, 372-373 Office of National Drug Control Policy, 431 Ointment, local anesthetic, 332 Older Americans Act, 706 **Oncology Nursing Society** education resources of, 6 placebo and, 55, 56 On-line computerized database, 612 Operative site bleeding, 146 Ophthalmic procedure, 372-373 Opiate, definition of, 104; see also Opioid analgesic

Opinion leader, 712, 716 Opioid analgesics, 105f, 161-293 for acute pain, 178t addiction to; see Addiction adverse effects, 146t antidepressant with, 308 around the clock dosing of, 175 in cognitively impaired elderly, 704 rescue dose and, 244-246 arthritis and, 526 breast feeding and, 623 cancer-related pain and, 541; see also Cancer-related pain cessation of therapy with, 270-271 characteristics of intraspinal, 223-224t in child, 143t-144t for chronic pain, 178t, 496-499 classification of, 165 in combination; see Combination analgesic comparison of, 113-114, 114t definition of, 36, 130, 162, 363, 429 detoxification and, 459t documentation for, 272, 273 dosages, 133t starting, 244t rescue, 245t elderly and, 691-695, 694, 699t cognitively impaired, 701 endogenous composition and function of, 165 definition of, 16 modulation of pain and, 22-23 equianalgesic dosage of, 133t, 174, 240-243 examples of, 109t fibromyalgia and, 549 herpes zoster and, 562-563 HIV and, 565, 567 immune system and, 29-30 infant and, 654-656, 654t weaning flowsheet, 632t intraspinal characteristics, 223-224t labor and delivery and, 618, 619-620 mechanism of action of, 165-166 misconceptions about, 163-164t infant and, 631 potency and, 170 mu agonist characteristics, 179-180t newer, 190-191 nonsteroidal antiinflammatory drug with, 131t, 132, 149t oral administration of; see Oral administration, of opioid osteoporosis and, 574-575 outpatient, 755t pain mechanism affected by, 108 treatment definitions, 462t pancreatitis and, 581 patient education about, 272-292; see also Education, patient patient-controlled, 249-255; see also Patient-controlled analgesia perioperative, 145 metabolic response and, 24-25

Opioid analgesics-cont'd peripheral neuropathy and, 578-579 pharmacology of, 166-174 absorption and metabolism and, 168 addiction and, 173; see also Addiction equianalgesia and, 174 equivalent products, 197t pharmacokinetics of, 167-170 pharmadynamics of, 170-174 physical dependence and, 173 potency and efficacy and, 170-171 tolerance and, 169-173 polypharmacy and, 304-306 pregnancy and, 613-614 PRN dosing of, 175 for procedural pain, 378-380, 399t receptors; see Opioid receptors rectal administration of, 205t as rescue analgesia, 134 respiratory effects and, 26 routes of administration of, 195-196t intranasal, 203 intraspinal, 213-239; see also Epidural analgesia; Intraspinal analgesia; Intrathecal administration nebulized, 203 oral, 194-203; see also Oral administration parenteral, 209–213; see also Intramuscular administration; Intravenous administration; Subcutaneous administration rectal, 204-205 stomal, 205-206, 206t transdermal, 206-209 selection guidelines for agonist-antagonist and, 188-190; see also Agonist-antagonist mu agonist and, 178-188; see also Mu agonist new drugs and, 190-191 patient characteristics in, 191-194 route of administration and, 239-240 starting dose and, 240-246 sickle cell disease and, 585, 587 side effects of, 261-270 alternatives for, 256t biliary spasm as, 265 constipation as, 262 epidural analgesia and, 254t-255t mental status changes as, 263, 267-268 myoclonus as, 266-267 nausea and vomiting as, 261, 263, 264-265 options for, 256t preventing and managing, 263-264t prevention, 262-264t pruritus as, 263, 265-266 respiratory depression as, 268-270 sedation as, 267-268 urinary retention as, 266 switching of, 257t from epidural to intravenous, 257-259 from multiple drugs to single, 259-260 from one route to another, 257-259 to another opioid, 253, 255-257 temporomandibular dysfunction and, 590

Opioid analgesics-cont'd undertreatment of pain and, 9 unwarranted withholding of, 271-272; see also Undertreatment of pain withdrawal of, 494-496 written agreement about, 753-755 Opioid antagonists, 162, 363; see also Naloxone inappropriate use of, 269-270 Opioid dose-sparing effect, 130 Opioid-naive patient epidural analgesia in, 225 infusion and, 81, 251 patient-controlled analgesia for, 250, 252t respiratory depression in, 145, 268-269 tolerant versus, 172-173 Opioid receptors, 165-166, 165f, 166f, 167t Opioid treatment, long term, 490-499, 498t Oral administration clonidine, 336 of cocaine, 316 of local anesthetic, 317-320 for child, 341t of opioid, 194-201 disadvantages of, 196 formulations for, 196-199 intravenous analgesia and, 258-259 methadone, 185 patient-controlled, 199-200 postoperative pain and, 201 transdermal fentanyl and, 209t transmucosal, 201-203 as optimal route, 121 tramadol and, 190 Oral transmucosal fentanyl citrate, 202f, 207f, 209t for procedural pain, 378, 379t as rescue analgesic, 245t Organ failure, 192 Organizations, professional, 12t acronyms for, 2 growth of, 11 Orphenadrine, 305t as muscle relaxant, 327, 328 musculoskeletal pain and, 327t nonopioids with, 150 Orthodontic therapy, 591 Orthopedic surgery, 678t Orthostatic hypotension, antidepressant and, 308 in elderly, 697 Orudis; see Ketoprofen Osteoarthritis, 523-527 affected joints, 525f alternative treatment for, 690t joint characteristics, 524f oxycodone for, 692 Osteoporosis, 572-576 assessment of, 573-574 definition of, 572-573 fracture sites in, 573f pain characteristics of, 573 pain management of, 574-575

Osteoporosis-cont'd posture in, 574f Osteoporosis and Related bone Diseases National Resource Center, 518 OTFC; see Oral transmucosal fentanyl citrate Oucher rating scale, 63 Outpatient chronic pain and, 505 drug treatment and, 451t, 456, 458 patient information for, 752, 755 Overdose of nonsteroidal antiinflammatory drugs, 150-152 opioid, 269 Over-the-counter drug arthritis and, 526 list of. 125 nonopioid, 148-150, 148t-149t, 150t rebound headache from, 559 Oxaprozin brand name of, 138t dosages of, 139t Oxazepam, 656t Oxicam, 139t Oxycodone characteristics of, 180t, 186-187 elderly and, 692 equianalgesic doses of, 133t, 242t fixed combination with, 117 oral, 198-199 patient information about, 287-290 pregnancy and, 614 switching from, 259, 260 transdermal fentanyl and, 209t Oxygen cluster headache and, 559 cognitive impairment in elderly and, 701 headache and, 556-557 sickle cell disease and, 585 thermoregulation and, 26 Oxymorphone characteristics of, 180t, 187 equianalgesic doses of, 242t Pacing, by patient, 504t Pain addiction and, 429-430, 452; see also Addiction anatomy and physiology of, 18-23 assessment of, 36-99; see also Assessment

assessment of, 36–99; *see also* Assessment tool, 60*f*, 60*t* back angiography and, 391 chronic, 473–474 psychiatric setting and, 475–476 breakthrough; *see* Breakthrough pain care committee; *see* Pain care committee cancer-related, 531–543; *see also* Cancer-related pain cause, known versus unknown, 46–50 center, 514 Pain-cont'd centrally generated classification of, 19t definition of, 16 chronic; see Chronic pain classification by inferred pathology, 19t clinician's expectations about, 44-46 conditions causing, 522-607 ankylosing spondylitis, 595-596 arachnoiditis, 596 burn, 527-531 chronic fatigue syndrome, 597 Crohn's disease, 597-598 Ehlers-Danlos syndrome, 543-545 fibromyalgia syndrome, 545-550 headache, 550-560 hemophilia, 598-599 herpes zoster, 561-564 human immunodeficiency virus infection, 564-568 low back pain, 599-600 Lyme disease, 600-601 mastectomy, 537t, 604 mucositis, 601-602 multiple sclerosis, 602-603 myofascial pain syndrome, 568-572 osteoporosis, 572-576 pancreatitis, 579-581 peripheral neuropathy, 576-579 phantom limb, 603-604 poliomyelitis, 604-605 reflex sympathetic dystrophy, 581-584 sickle cell disease, 585-588 spinal cord injury, 606-607 temporomandibular joint disorder, 588-591 thoracotomy, 537t, 605-606 wound pain, 592-595 control record, 87-88t crescendo, 335-340 deafferentation, 302 definition of, 16-17 denial of, 89, 92 documentation of responses, 459t facilities, 10-11, 514, 514t harmful effects of, 23-32, 24t on cardiovascular system, 25-26 on cognitive function, 28-29 on development, 30 on endocrine and metabolic system, 23-25 on future pain, 30-31 on gastrointestinal system, 27-28 on genitourinary system, 27 on immune system, 29-30 on musculoskeletal system, 27-28 on quality of life, 31-32 on respiratory system, 26-27 in infant, 629-669; see also Infant intensity, 95t inventory, 61f, 61t known versus unknown cause of, 46-48

Pain-cont'd Knowledge and attitude survey, 728t management; see Pain management mechanism of, 16-32 misconceptions about, 17t nonopioids and, 108 myofascial, 489 neuropathic; see Neuropathic pain nociceptive, 18-23, 19t; see also Nociceptive pain nondrug treatment of, 399-425; see also Nondrug pain treatment nonmalignant; see Chronic pain pathology, inferred, 19t perception, 16 in elderly, 675 physiology of, resources about, 17 in pregnancy, 615-616 procedural, 362-395; see also Procedural pain management psychogenic, 36, 49-50 rating scales; see Pain rating scales relief diary, 200 report, 90-91t resource nurse (PRN), 5, 741t, 742 dosing, 175 response, acute pain model of, 43-46 screen, 96t services, 739-740 creation of, 11 somatic, 19t subjectivity of, 5, 9 supratentorial, 49-50 sympathetically maintained, 330 tabetic, 302 threshold, 42 tolerance, high versus low, 42-43 transmission of, 16, 19t, 20-21f, 22-23 of antidepressant, 309f definition of, 106f illustration of, 21, 107f for local anesthetics, 319f process of, 22 types of, 17-18, 19t definitions of, 16 treatment approaches to, 18 undertreatment of; see Undertreatment of pain visceral, 19t Pain care committee, 713, 715-737 composition of, 716-717 data collection by, 720-730 establishment of, 715-716 ground rules for, 718t leadership of, 717 mission statement of, 717-718, 718t problems with, 718-720 resources for, 717t responsibilities of, 730-737 Pain management, 711-742 audit of, 727 barriers to, 2-10

Pain management-cont'd barriers to-cont'd health care professionals as, 4-10 institutional, 713 lack of accountability and, 3-4 patient and family as, 10 information gathering for, 515t institutional commitment to, 715-743 administrative rules and, 738 assessment standards, 734t cause and effect diagram, 722-723f clinical pathways and, 738-739 knowledge and attitude survey, 728t library, 738t need for change and, 720-730 needs assessment tool, 724-726t nurse-based PCA programs and, 742-743 pain care committee and, 715-720, 730-737 pain resource nurse programs and, 742 pain services and, 739-740 patient questionnaire, 729t quick reference guide, 736t role model programs and, 740-742 misconceptions about, 712-713, 712t patient questionnaire about, 729 patient teaching checklist, 273t program for, 515 progress in, 10-13 quality improvement, 713-715, 714-715t, 716t data analysis tools, 721f teaching checklist, 273 team approach to, 89t in terminally ill, 272 Pain rating scales; see also Assessment, tool definition of, 36 faces, 64-65f, 67f failure to obtain, 36, 38 for infant, 639-649 neuropathy, 76-77t preferred, 37 selecting, 66t teaching use of, 74t translations of, 68-73f Palliation, local anesthetics for, 320 Pamelor; see Nortriptyline Pamidronate, 325 Panadol, 148t Pancreatitis, 579-581 autodigestion, 580f pain mechanisms, 580t Paracervical block, 621 Parafon Forte; see Chlorzoxazone Paranoia, opioids causing, 263t Paravertebral sympathetic ganglion blockade, 583-584 Parent of infant, 668 Parenteral administration; see also specific routes of ketamine, 337-338 of ketorolac, 133 in child, 144

Parenteral administration-cont'd of ketorolac-cont'd postoperative, 145 of lidocaine, 338-339 of local anesthetic, 317-320 of nonsteroidal antiinflammatory drug, 131t of opioid, 209-213 labor and delivery and, 619, 621 of phenytoin, 339 Paresthesia, 162, 302 Parkland burn pain management pathway, 529t, 530 Paroxetine, 306t, 307 indications and dosages of, 343t Paroxysmal definition of, 302 sweats in alcohol withdrawal, 457 Patch blood, 232 fentanyl, 277-278 local anesthetic, 332 transdermal, 207-209 Patients assistance program for, 194 as barrier to pain management, 10 education; see Education, patient educational materials, 274t information for, 126-127t pain relief diary, 200t report of pain by, 38-40 rights of, 13t surveying of, 721, 729, 730 Patient-controlled analgesia (PCA), 175-177, 211, 248-253 for acute pain, 754t appropriateness of, 176-177 breast feeding and, 623 burn injury and, 529t cardiovascular effects and, 25 with continuous infusion, 251-252 dosage calculation for, 122, 250t pediatric, 255t for elderly, 693 cognitively impaired, 702 epidural, 220, 224-227, 225t hydromorphone for, 265 initiation in PACU, 252-253 intraspinal, 220, 224-226 IV use, 176t, 291-292t lidocaine for, 339 nurse-based program for, 742-743 opioid-naive adult ranges, 252t oral, 199-200, 199t patient information about, 291-292 patient selection for, 176-177 pediatric, 253, 255t procedural, 388 pump use, 177t, 249t respiratory effects and, 26 side effect reduction, 254-255t starting prescription for, 250-252, 250t subcutaneous continuous infusion and, 210-213

Patient-controlled analgesia-cont'd titration of dose and, 246 unconventional use of, 177 written agreement for, 754-755 Patient's bill of rights, 13t Paxil; see Paroxetine PCA; see Patient-controlled analgesia P4502D6, 181n Pediatric patient; see Child Pediodicals, clinical, 738 Pemoline, 305t Penile block for circumcision, 376 Pentamorphone, 190 Pentazocine characteristics of, 189-190 elderly and, 693, 699t equianalgesic dosage of, 133t, 242t mild pain and, 191 Pentobarbital in elderly, 699t Peptic ulcer corticosteroid causing, 312 in elderly, 698-699 elderly and, 689 Perception of pain antidepressants and, 309f definition of, 16, 106f in elderly, 675 local anesthetics and, 319f process of, 22 Percocet, 116, 134 Percogesic Coated, 148t Perinatal period, 609 definition of, 627 Periodicals, clinical, 5, 8t, 738 Perioperative analgesia gastrointestinal function and, 28 nonsteroidal antiinflammatory drugs for, 133, 144-148 adverse effects of, 145-148, 145-148, 146t effectiveness of, 144-145 opioid, 24-25 Peripheral nerve block; see Nerve block Peripheral nerve in infant, 635 Peripheral neuropathy, 16, 576-579 assessment of, 577 cancer-related, 538t description of, 576-577, 577f pain management of, 577-579 Peripheral vascular disease, 696 Peripherally generated pain, 19t Perphenazine, 699t Persistent vegetative state, 94-95 Phantom limb pain, 603-604 in elderly, 694 previous acute pain and, 30 Pharmacodynamics in infant, 652-653 Pharmacokinetics HIV and, 567 infant and, 652-653 of opioids, 167-170

Pharmacology of opioid analgesic, 166-174; see also Opioid analgesic, pharmacology of equivalent products, 197t Pharmacotherapy for drug abuse, 442t, 443 Phenacetin liver toxicity of, 135 renal failure caused by, 135 Phenergan, 380 Phenobarbital alcohol. 458 opioids and, 193 Phenothiazine, 113 opioids and, 193 Phenoxybenzamine, 305t Phentolamine, 584 Phenylbutazone, 699t Phenyltoloxamine citrate, 150 Phenytoin, 305t adverse effects of, 323 for child, 341t for crescendo pain, 339 indications and dosages of, 342t for lancinating pain, 324 neuropathic pain and, 321t opioids and, 193 overview of, 321-322 parenteral, 339 Physical abuse of elderly, 706 Physical appearance in pain assessment, 57 in infant, 633f, 634f Physical dependence addiction versus, 434 definition of, 50, 162, 429 opioid and, 173 Physical rehabilitation chronic pain and, 503, 505 postoperative, 740 Physical therapy ankylosing spondylitis and, 595-596 arthritis and, 526 chronic pain and, 503, 505 Ehlers-Danlos syndrome and, 545 fibromyalgia and, 549 reflex sympathetic dystrophy and, 583 temporomandibular dysfunction and, 591 Physiologic response to pain, 95 acute pain model and, 45 Physiology of pain, resources about, 17 Pimozide, 305t dosages of, 344 indications for, 334, 344 neuropathic pain and, 321t Pinch-grasp injection technique, 395f PIPP; see Premature Infant Pain Profile Piroxicam, 139t Placebo(s) chronic pain and, 492 controlled trial, 302 definition of, 36 EMLA versus, 376

Placebo(s)-cont'd misconceptions about, 54-55 recommendations about, 55-56 transdermal fentanyl and, 209 use of, 56t, 57t Placenta, 610 Plasma protein, 169 Platelet, 110, 138, 144 Plexus brachial cancer-related pain in, 535t radiation fibrosis of, 540t celiac, 581 lumbar, 535t lumbosacral, 540t sacral, 536t Policy on placebo use, 56 Poliomyelitis, 604-605 Polymyalgia rheumatica, 696 Polyneuropathy definition of, 19t in elderly, 696 Polypharmacy; see also Combination analgesia adjuvant analgesics and, 304 in elderly, 698-699 HIV and, 567 misconceptions about, 105t Ponstel; see Mefenamic acid Positioning of infant, 658-659 Postchemotherapy pain, 538t-539t Postdural puncture headache, 232 Posterior deltoid trigger point, 571f Postherpetic neuralgia, 31, 561-564, 561f, 562 in elderly, 696 Postmastectomy pain, 537t, 604 Postnatal age, 649 Postoperative pain cesarean section, 622-623 in child, 143t, 144 dextroamphetamine for, 339 in elderly, 680, 690-691 cognitively impaired, 701 nonsteroidal antiinflammatory drugs for, 133, 143t opioid and, 191-192 oral analgesics for, 201 patient-controlled analgesia for, 250-251, 252-253 preemptive analgesia and, 120-121 rehabilitation program for, 680, 740 transdermal fentanyl for, 209 Postpartum pain, 621-623 Postpolio pain, 604-605 Postradiation pain, 540t Postthoracotomy pain, 605-606 Posttraumatic stress, 468 burn injury and, 529t, 531 Posture, stooped, 574f Potency definition of, 162 of opioid, 170-171 methadone, 186

Potential action definition of, 16 transduction of pain and, 18 resting, 16, 18 Prazosin, 305t postmastectomy pain and, 604 Preceptorships, 740, 741t Precontemplation stage of drug treatment, 447-448, 447t Prednisone, 305t breast feeding and, 624 cluster headache and, 556t migraine and, 555t Preemptive analgesia advantages of, 120-121 characteristics of, 174-175 for child, 143t-144 concept of, 174-175 definition of, 162, 363 nonsteroidal antiinflammatory drugs for, 133, 145 Pregnancy, 609-623 acetaminophen and, 611, 613 adjuvant analgesic in, 614-615 analgesics opioid, 613-614 references and resources, 611-612t use during, 610t, 611-615 back pain in, 615-616 Braxton Hicks contractions in, 616 childbirth pain management and, 617-621 FDA risk classification, 609-610, 611t headache in, 615 lactation classifications, 623t maternal-placental-fetal drug transfer and, 610-611, 613f misconceptions related to analgesic use, 610 nonsteroidal antiinflammatory drugs and, 142 pain management resources, 611t postpartum pain and, 621-623 pyrosis in, 616 round ligament pain in, 615 sickle cell disease and, 616 substance abuse and, 616-617 Premature Infant Pain Profile (PIPP), 642, 645t, 650; see also Infants; Preterm infants Preoperative analgesia, nonsteroidal antiinflammatory drugs for, 145 Preoperative medication, nonsteroidal antiinflammatory drugs for, 133 Prescribing of opioid analgesics, 751-755 Prescription analgesic, list of, 125 Pressure on injection site, 394 intracranial, corticosteroids for, 312 wound pain and, 593 Preterm infants, 609; see also Infants CRIES score, 644t definition of, 627 intensive care interventions, 662-663f minimizing pain in, 661 opioid in, 655

Preterm infants, 609-cont'd pain in, 637-638 behavior, 635 management guidelines, 664-667t PIPP. 645t Prilocaine circumcision and, 637 in EMLA; see EMLA eutectic mixture, 375t Primary afferent neuron, 16 Primigravida, 609 Primipara, 609 Pruritus, 265-266 use of antagonists and agonist-antagonists, 265-266 Privileging system, 712 PRN; see Pain resource nurses Procaine elderly and, 698 infusion of, 339 Procedural pain management, 363-395 angiography and, 390 assessment in, 366-367 barbiturates for, 381, 386 barriers to, 363 benzodiazepines for, 381, 385t burn injury and, 529t cancer treatment and, 537, 537t-539t chloral hydrate, 386 conscious sedation, 382-378 general anesthetics for, 386-389 goals of, 365 informed consent and, 365 intramuscular injection and, 391-395 iontophoresis, 377-378 local anesthetics for, 367-378; see also Local anesthetic misconceptions about, 364t need for, 363-365, 365t nondrug approaches to, 389-390 opioids for, 378-381 patient education and, 365-366 refrigerant sprays, 377 suturing and, 395 wound and, 593 Process, definition of, 712 Prochlorperazine, migraine and, 554t Professional education, resources for, 6-7t Professional organization acronyms for, 2 focus on pain, 12t growth of, 11 Promethazine, 695 Prophylaxis migraine and, 553, 556 for NSAID-induced ulcer, 137 for perioperative/postoperative pain; see Preemptive analgesia Propofol patient-controlled analgesia with, 388 procedural analgesia with, 387-388, 387t Propoxyphene characteristics of, 187-188

Propoxyphene-cont'd elderly and, 693, 699t equianalgesic dosage of, 133t, 242t pregnancy and, 614 Propranolol, 305t migraine and, 555t, 556 Proprioceptive receptor, 592 Proprionic acid derivative, 139t; see Ibuprofen; Ketoprofen; Naproxen Proproxyphene, 180t Prostaglandin nonsteroidal antiinflammatory drugs and, 130, 136 transduction of pain and, 18 Prostate cancer, 532t age and, 678t Protease inhibitor, 567 Protein binding in elderly, 688, 690 opioids and, 169 Protein synthesis, muscle, 25 Protocol for infant, 664-667 Proxy pain rating, 95 Prozac; see Fluoxetine Pruritus, opioids causing, 263t, 265-266 Pseudoaddiction, 51, 173-174 Pseudorheumatism, steroid, 312 Psilocybin, 433 Psychiatric disorders with alcohol addiction, 436-437, 436t, 437t nonmalignant pain and, 476t Psychiatric setting, 475-476 Psychogenic pain, 36, 49-50 Psychologic dependence, 51, 173-174 Psychologic factors chronic pain and, 499 fibromyalgia and, 546-547 herpes zoster and, 562 Lyme disease and, 601 reflex sympathetic dystrophy and, 583 Psychostimulant, 314-317 for child, 341t examples of, 305t Pudendal nerve block, 621 Pumps external, 219f implantable, 219f for patient-controlled analgesia, 175-177, 249; see also Patient-controlled analgesia Puncture, dural, 232 Pyranocarboxylic acid, 139t, 140t Pyrosis, pregnancy and, 616

Q

Quality assurance, 712 Quality improvement, 713–715, 721*f* data analysis tools, 721*f*, 722–723*f* data collection, 720–730 definition of, 712 guidelines, 716 pain care committee and, 715, 733–734 Quality of life, 31–32 Quality of pain, 59 Quantitative sensory testing, 577 Questionnaire barriers, 89, 92, 93 CAGE, 705 chronic pain and, 478–487 coping strategies, 519 McGill pain, 577 patient, 729 Quick reference guide for pain management, 736

R

Race and culture in pain assessment, 57 Radiation fibrosis, 540t Radionuclide for malignant bone pain, 325t, 326 Randomized study, 302 Ranitidine in elderly, 699t NSAID-induced ulcers and, 137 Rash, herpes zoster, 562 Rating scale for pain, 62-75; see also Pain rating scale Rebound headache, 559 Receptors, opioid, 165-166, 165f, 166t, 167t intraspinal anesthesia and, 222 Recovery from addiction, 446, 459-460 Rectal administration of acetaminophen, 150t in child, 143t, 150t of nonsteroidal antiinflammatory drug, 131t of opioids, 195t, 204-205, 205t Rectal cancer, 532t age and, 678t Reference guide formulary analgesic, 737 for pain management, 736 Referral chronic pain and, 513, 516 for drug treatment, 450, 451t Referred pain, 568-572 Reflex sympathetic dystrophy, 581-584 in elderly, 697 typical, 582f Refrigerant spray, 377 Refusal of pain treatment, 89, 92 Regional anesthesia in infant, 656 Regional blockade labor and delivery and, 619 reflex sympathetic dystrophy and, 584 Reglan; see Metoclopramide Regulation, federal, 9-10 Rehabilitation chronic pain and, 487-490, 503, 505 postoperative, 740 Relafen; see Nabumetone Relapse in drug treatment, 436-438, 448 Relaxation technique, 417-421 characteristics of, 419 chronic pain and, 500-501 deep breathing, 420t

Relaxation technique-cont'd imagining, 420t indications for, 418-419 labor and delivery and, 617 massage as, 420-421, 421t music, 391t patient involvement in, 419-421 research about, 418 Remifentanil characteristics of. 190 metabolism of, 192 Renal function acetaminophen and, 135-136 ketorolac and, 146-147 nonsteroidal antiinflammatory drugs and, 138 opioid analgesia and, 192 tramadol and, 191 Repolarization, 16 Rescue analgesic dosage calculation for, 122, 244-246 nonopioids versus opioids as, 134 selection of, 121 Research, terminology related to, 302 Residential drug treatment, 442t, 446 Respiratory depression, 264t, 267, 268-270 elderly and, 695 fear of, 9 infant and, 655t labor and delivery and, 619 misconceptions about, 163t naloxone for, 269 in opioid-naive patient, 145 procedural analgesia and, 378, 380 Respiratory effects of pain, 26-27 Respiratory rate, infusion and, 81 Responsiveness to adjuvant analgesic, 304 to opioid, 171 Resting potential, 16 Restraint of infant, 659 Retention, urinary, 266 epidural analgesia in child and, 239 Revex; see Nalmefene Rhenium-186, 325, 326 Rheumatoid arthritis, 523-525 affected joints, 525f alternative treatment for, 690t joint characteristics, 524f Rhinoplasty, gel pack for, 409f Rib fracture, fentanyl for, 26 Rib pain, cancer-related, 535t Rid-a-Pain with Codeine, 149t Rightss, of patients with pain, 13, 13t Rimadyl; see Carprofen Ritalin; see Methylphenidate Ritonavir, 567 Robaxin; see Methocarbamol Role model program, 740-742 Romazicon; see Flumazenil

Ropivacaine in elderly, 694 injectable, 368 intraspinal, 228 for procedural pain, 369t Round ligament pain, 615 Route of administration, 131t, 194, 195-196t adjuvant analgesic and, 113 benzodiazepines and, 381 bioavailability of drug and, 169 buccal, 195t, 201 for elderly, 693-694 epidural, 213-239 individualization of regimen and, 121 infusion; see Infusion intraarterial. 196t intracerebroventricular, 196t intramuscular; see Intramuscular administration intranasal, 195t, 203 definition of, 162 effectiveness of, 25 midazolam and, 381 intrathecal, 196t, 213-239 for labor and delivery, 619-620 intraspinal, 213-239 intravenous; see Intravenous administration nebulized, 203 for nonsteroidal antiinflammatory drugs, 110, 141 oral, 194-201 oral transmucosal, 201-203 patient's resistance to, 54 for procedural pain, 378 rectal, 204-205, 205t reducing pain in, 391-394 stomal, 205-206 subcutaneous, 195t, 210-211, 211t, 212 sublingual, 195t, 201 switching of, 257-260 systemic, 302 transdermal, 206-209 transmucosal; see Transmucosal administration of opioid vaginal, 206 Rufen; see Ibuprofen Rule, administrative, 738

S

Sacral plexus, 536t Saddle block, 619 Salicylate dosage of, 139t overdose of, 152 Saline, bacteriostatic, 370 Saliva, artificial, 602 Salsalate bleeding disorder and, 144 dosage of, 139t Samarium-153, 325, 326 Sandostatin; see Octreotide Sansert; see Methylsergide Saquinavir, 567 Scaleni trigger point, 571f Schizophrenia, alcohol addiction and, 436 Sclerosis, multiple, 602-603 Scopolamine, 327 Secobarbital, 699t Seconal; see Secobarbital Secondary gain, 41-42 Sedation conscious, 382-384t elderly and, 695 infusion and, 81 levels of, 267 misconceptions about, 364 opioids causing, 193, 267-268 procedural analgesia and, 378, 380, 381-386 procedures requiring, 365t scale, 267t Sedatives addiction to, 432t, 433 alcohol withdrawal and, 458 detoxification protocols, 458t elderly and, 699t infant and, 655 Seizure, tramadol and, 191 Selective serotonin reuptake inhibitor as adjuvant analgesic, 307, 310 elderly and, 697 fibromyalgia and, 548 peripheral neuropathy and, 578 pregnancy and, 614 sexual dysfunction caused by, 309 side effects of, 308 Sensorcaine; see Bupivacaine Sensory deficit with epidural anesthesia, 230t Sensory testing, quantitative, 577 Sequential trial, 162, 302 Serotonin, 23 Serotonin antagonist, 555t Serotonin-receptor agonist, 553 Sertraline, 305t, 306t indications and dosages of, 343t Sex hormone in osteoporosis, 575 Sexual dysfunction with antidepressant, 309 Shingles, 561-564, 561f chronic pain and, 31 Shooting pain; see Lancinating pain Sickle cell disease, 585-588 pain examples, 586f pregnancy and, 616 Sickness Impact Profile, 519 Side effects, of opioids analgesics, 261-270 biliary spasm as, 265 constipation as, 262 mental status changes as, 263, 267-268 myoclonus as, 266-267 nausea and vomiting as, 261, 263, 264-265 options for, 256t pruritus as, 263, 265-266 respiratory depression as, 268-270 sedation as, 267-268

Side effects, of opioids analgesics-cont'd urinary retention as, 266 Silent cry, 634f Simple descriptor rating scale, 63 numerical scale versus, 65 Sinequan; see Doxepin Single blind study, 302 Skin burn injury to, 527-531 cutaneous stimulation and, 390, 405-412 heat and cold for, 406-411 sites in, 406f vibration as, 411-412 Ehlers-Danlos syndrome and, 543 shingles and, 561-564 wound pain and, 592-595 Skin-to-skin intervention, 660-661 Sleep disorder burn injury and, 529t chronic pain and, 500 in cognitively impaired elderly, 701 pain effects on, 29 severe pain and, 46 wound pain and, 592 Sodium bicarbonate for infant, 665-666 Sodium ion in transduction of pain, 18 Sodium salicylate, 133t Solubility intraspinal anesthesia and, 220-222 of opioids, 169 Soma; see Carisoprodol Somatic pain, 16 cancer-related, 533 definition of, 19t Somatization, 468 Somatoform disorder, 36, 49 Spasm fibromyalgia and, 547-548 pain causing, 28 Specialist, certification of, 11-12 Sphincter of Oddi, 581 Spinal analgesia; see also Epidural analgesia; Intraspinal analgesia clonidine, 337t labor and delivery and, 619-620 Spinal cord compression of cancer-related, 539 corticosteroids for, 312, 313, 339-340 injury to, 606-607 neuropathic pain and, 23 pain in infants and, 635 tumor of, 536t Spinal nerve, dermatomes and, 217f Spine; see also Back pain anatomy of, 213-214, 216t ankylosing spondylitis and, 595-596 arachnoiditis and, 596 elderly and, 679t osteoporosis and, 574

Spine-cont'd tumor of, 533t vertical column, 216f Splinting, 594 Spray nasal, 112 refrigerant, 377 Spray and stretch technique for myofascial pain syndrome, 570 Stadol; see Butorphanol Stanback, 149t Stanback AF Extra-Strength, 148t Standard for assessment, treatment, and documentation, 730, 734t definition of, 712 State medical board, 9-10 Status migraine, 556 Steady state of opioid, 169-170 Steroid; see Corticosteroid Stiffness, fibromyalgia and, 548 Stigma of addiction, 51, 53 Stimulation cutaneous, 390, 405-412 heat and cold for, 406-411 sites in, 406f vibration as, 411-412 dorsal column, 584 electric, in multiple sclerosis, 603 Stimulus, noxious, 16 Stocking-glove distribution of pain, 577f Stomach disorder, 136-137 Stomal administration of opioid, 205-206, 206t Stomatitis, 601-602 Stress, 23-32 chronic pain and, 501-503 harmful effects of, 23-32 on cardiovascular system, 25-26 on cognitive function, 28-29 developmental effects of, 30 on endocrine and metabolic system, 23-25 in future, 30-31 on gastrointestinal system, 27-28 on genitourinary system, 27 on immune system, 29-30 on musculoskeletal system, 27-28 on quality of life, 31-32 on respiratory system, 26-27 hypercoagulation and, 25 infant and, 635 posttraumatic, 468 Stroke, pain after, 696 Strontium chloride-89, 325, 326 Stump pain in elderly, 694 Subacute overdose, 269 Subarachnoid space, 213-214 Subarachnoid space block, 619-620 Subcutaneous administration of opioid, 195t, 210-211, 211*t*, 212 Sublimaze; see Fentanyl Sublingual administration of opioids, 195t, 201 Suboccipital trigger point, 571f

Substance abuse, 428-462; see also Addiction costs, 441f diagnostic criteria for, 435t, 436t motivational tasks, 447t patient placement, 451t pregnancy and, 616-617 Substance P, 22 Sucking, nonnutritive, 659 Sucralfate, 137 Sucrose for infant, 659-660 Sufentanil intranasal, 203 intraspinal, 224, 227 for opioid-naive adult, 225t pregnancy and, 614 solubility of, 169 Suicide, risk assessment, 487, 487t Sulindac, 139t Sumatriptan breast feeding and, 624 cluster headache and, 555t migraine and, 553 Superficial heat and cold, 406-411 Superior vena cava syndrome, 312, 313, 339 Support group, 686 Suppository; see Rectal administration Supraspinal injection, 162 Supraspinatus trigger point, 571f Supratentorial pain, 36, 49-50 Surgery; see also Perioperative analgesia; Postoperative pain ambulatory, 145 ankylosing spondylitis and, 596 arthritis and, 526 gel pack for incisional pain, 409f in infant, 24-25, 639, 662, 663f low back pain and, 600 multiple sclerosis and, 603 postmastectomy pain and, 604 reflex sympathetic dystrophy and, 584 temporomandibular dysfunction and, 591 Survey "Andrew-Robert," 38t, 39-40, 40t, 44 chronic pain and, 508 pain knowledge and attitude, 729 Suturing, atraumatic, 395 Swaddling of infant, 659 Sweats with alcohol withdrawal, 457 Sympathetic blockade, 584 Sympathetic dystrophy, reflex, 581-584, 582f Sympathetically maintained pain, 19t, 330 Symptom Checklist-90R, 519 Synapse, 16 Systemic drug, 302

Т

Tabetic pain, 302 TAC, 373 Tachycardia, 694 Tactile disturbance in alcohol withdrawal, 457 Talwin; *see* Pentazocine Tapering of opioid, 270-271, 494-496 Teaching; see Education entries Tegretol; see Carbamazepine Temporal arteritis, 695-696 Temporomandibular joint disorder, 588-591 sources and sites of pain, 589f Tempra, 148t Tenderness in fibromyalgia, 547 Tendinitis, 690t Tenormin: see Atenolol Tension headache, 555t, 557-558 Teratogenesis, 609 opioids and, 614 Terazocin, 604 Term infant; see also Infant definition of, 627 pain behavior in, 634 Terminally ill patient antidepressants for, 310 HIV and, 565 nebulized opioid for, 203 opioid for, 272 pain assessment in, 94 Terminology, 756-757 about agreements, 751-752 Testosterone, 24 Tetracaine, 371-372, 373, 374t Tetrahydrocannabinol, 334 Thermoregulation, 26 Thoracic epidural analgesia, 222 Thoracic surgery in elderly, 678t pain of, 605-606 Thoracic trauma, 26 Thoracic vertebral tumor, 536t Thorazine; see Chlorpromazine Throat, gel pack for, 409f Tick-borne disease, 600-601 Tissue adhesive, 395 Titration of dose for acetaminophen, 141 definition of, 36 individualization of regimen and, 121-122 for nonsteroidal antiinflammatory drugs, 141 of opioid, 246-249 for elderly, 695 patient-controlled analgesia, 253 Tizanidine, 305t, 342t TLC, 373 Tocainide, 305t elderly and, 698 indications and dosages of, 344 neuropathic pain and, 318, 321t Tofanil; see Imipramine Tolerance drug addiction versus, 433-434 definition of, 50, 162, 429 epidural analgesia and, 260-261 methadone and, 185-186

Tolerance-cont'd drug-cont'd misconceptions about, 163t opioid, 171–173 switching of drug in, 253-257 pain, high versus low, 42-43 Tolmetin, 139t Tonocard; see Tocainide Tool, assessment, 58-99; see also Assessment, tools for Topical agent, 331-332, 331t adjuvant, 305t antiinflammatory, 331 burn injury and, 530-531 capsaicin, 331 herpes zoster and, 562 infant and, 656-657 local anesthetic, 331-332, 371-377 mucositis and, 602 neuropathic pain and, 321t osteoporosis and, 575 peripheral neuropathy and, 578 refrigerant spray and, 377 Toradol; see Ketorolac Total body surface area, 527 Total knee replacement, 694 Total quality management, 713, 714-715t Toxicity corticosteroid, 312 in elderly, 697-698 epidural local anesthetics and, 230t local anesthetic, 318, 368 elderly and, 698 of topical agent, 332 Toxicology, urine, 446 Trade name of nonopioid drugs, 138t Tramadol characteristics of, 190-191 elderly and, 692 Transcutaneous electrical nerve stimulation for elderly, 700 reflex sympathetic dystrophy and, 583 Transdermal administration of opioid, 206-209 Transduction, 16, 18, 22 of antidepressant, 309f definition of, 106f illustration of, 21, 107f for local anesthetics, 319f nonsteroidal antiinflammatory drugs and, 130 Transmission of pain, 16, 19t of antidepressant, 309f definition of, 106f illustration of, 21, 107f for local anesthetics, 319f process of, 22 Transmucosal administration of opioid buccal, 201 characteristics of, 195t of fentanyl, 202f, 207f, 209t characteristics of, 202-203

Transmucosal administration of opioid-cont'd of fentanyl-cont'd for procedural pain, 378, 379t as rescue analgesic, 245 gingival, 201 for procedural pain, 378 sublingual, 201 Trauma infant and, 638-639 needle or catheter. 233 spinal cord, 606-607 wound pain and, 592-595 Trazodone, 305t, 306t, 307 Treatment, misconceptions affecting, 37t Tremor in alcohol withdrawal, 457 Trial, clinical, types of, 302 Triavil, 699t Tricyclic antidepressant; see Antidepressant Trigeminal Neuralgia Association, 518 Trigger for migraine, 553 Trigger point, 569, 570, 571f in fibromyalgia identification of, 546 injection of, 549 Trilisate; see Choline magnesium trisalicylate Trimester of pregnancy, 609 Trunk pain in elderly, 679t Tumor, 531-543; see also Cancer-related pain Twelve-step program of drug treatment, 442-443, 442t Tylenol; see Acetaminophen Tylenol 3, 117, 134 Tylox, 117, 134

U

Ulcer aphthous, HIV and, 566-567 corticosteroid causing, 312 in elderly, 689, 698-699 nonsteroidal antiinflammatory drugs causing, 136, 137 reducing risk of, 110 venous, 592 Unconscious patient, pain assessment in, 94 Undertreatment of pain in chronic nonmalignant pain, 271 circumcision and, 636-639 diagnosis of cause of pain and, 47 in elderly, 676-677 health care professional and, 4-5, 9-10 education for, 734, 736-737 in infants, 628-631 nurses' expectations about pain of, 44 postoperative, in child, 144 in terminally ill patient, 272 weaning from mechanical ventilation and, 271-272 Unidimensional pain measures in infants, 640-642, 643t UNIPACS, 6 Unrelieved pain, 3-4, 23-32, 24t Urecholine; see Bethanechol Urethral catheterization, atraumatic, 372t Urinary retention, 266

Urinary retention—cont'd epidural analgesia and, 230*t* in child, 239 Urine toxicology, 446 Urologic surgery in elderly, 678*t* Uterine contraction, postpartum, 622 Uterus cesarean section and, 622–623 involution of, 609

V

Vaginal administration of opioid, 206 of opioids, 195t Valium; see Diazepam Valproate indications and dosages of, 342t neuropathic pain and, 321t Valproic acid, 305t adverse effects of, 323 for child, 341t cluster headache and, 556t migraine and, 555t overview of, 322 Vanquish, 149t Varicella-zoster virus, 561-564, 561f VAS; see Visual analog scale Vascular disease in elderly, 696 Vascular surgery in elderly, 678t hypercoagulability and, 25-26 Vastis lateralis injection site, 393f Vena cava syndrome, superior, 312 corticosteroids for, 312, 313, 339 Venlafaxine, 305t, 306t Venous ulcer, 592 Ventilation, mechanical, weaning from, 271-272 Ventrogluteal injection site, 392f Veracept; see Nelfinavir Verapamil cluster headache and, 556t migraine and, 555t Versed; see Midazolam Vertebral column, anatomy of, 213-214, 216f Vertebral fracture, 574 Vertebral tumor, 536t Very-low-birth-weight infant, 627 Vicodin, 117, 134 Vicoprofen, 134 Video tapes pain management, 738 Viracept; see Nelfinavir Viral infection HIV, 564-568, 566f peripheral neuropathy in, 576 varicella-zoster, 561-564, 561f Visceral pain, 16 cancer-related, 534t definition of, 19t Visual analog scale (VAS), 62 definition of, 36

Visual analog scale (VAS)—cont'd horizontal, 62*f* numerical scale versus, 65–66 Visual disturbance in alcohol withdrawal, 457 Vital sign fifth, 3 graphic record of, 735 infant and, 633 Vitamin D, osteoporosis and, 575 Vomiting alcohol withdrawal and, 457 elderly and, 695 ergotamine withdrawal and, 559 migraine and, 553 opioids causing, 261, 262*t*–263*t*

W

Weaning from mechanical ventilation, 271–272 from morphine in burn injury, 530 from opioid in infant, 632
Web sites for addiction treatment, 462–463 health-related, 749–750t
Whipple procedure, 258–259
WHO analgesic ladder, 115–119, 117f, 539, 541
Wigraine; *see* Ergotamine Williams & Wilkins Complete Library on Pain, 6 Wisconsin Cancer Pain Initiative, 6, 11, 274 Withdrawal alcohol, 457 chronic pain and, 494-496 corticosteroid, 312 infant and, 631 Withholding of treatment; see also Undertreatment of pain in chronic nonmalignant pain, 271 opioid, 271-272 in terminally ill patient, 272 weaning from mechanical ventilation and, 271-272 Wong-Baker faces pain rating scale, 63, 66, 67 cultural differences and, 98 World Health Organization analgesic ladder, 115-119, 117f, 539, 541 Cancer Pain Relief published by, 5 clinical practice guidelines of, 7 Wound pain, 592-595, 593t Written agreement, 751-755

Ζ

Zantac; see Ranitidine Zogmig; see Zolmitriptan Zolmitriptan, 554t Zoster ophthalmicus, 562 Z-track method of intramuscular injection, 391–394, 394f