Page references followed by t and f indicate tables and figures, respectively. Page references in **bold** indicate agenda items and key research questions.

A AAO. See American Academy of Ophthalmology	Adverse drug events associated with drug withdrawal, 381 postoperative, 31, 32 <i>t</i> , 35
AAO-H&NS. See American Academy of	ADVS. See Activities of Daily Vision Scale
Otolaryngology-Head and Neck Surgery	Aerobic (endurance) exercise, 349, 353
AAOS. See American Academy of Orthopaedic	AGA. See American Gastroenterological Association
Surgeons	Age-related macular degeneration, 189-190,
AAPM&R. See American Academy of Physical	190
Medicine and Rehabilitation	Agency for Health Care Policy and Research
Abdominal aortic aneurysm, 102–103, 103	(AHCPR), 122, 345, 355
Abdominal pain, in older emergency department patients, 65 , 65–66, 70 , 76	guideline for pressure ulcer prevention, 403 Agency for Healthcare Research and Quality
Abuse	(AHRQ), 5, 122, 355
alcohol	Agenda items, 6–7. See also specific topics
preoperative assessment, 22	Aging
screening for, 63–64	biology of, 371
elder, 56 , 64	and bone fusion or fracture healing, 316
ACAS. See Asymptomatic Carotid	and cardiac response, 149, 150
Atherosclerosis Study	and cataract extraction, 189
Access to necessary care, 345, 415	cellular and molecular changes, 370–372, 372
ACEP. See American College of Emergency	and cellular response to wear debris, 313
Physicians	homeostenosis of, 373
Achalasia, 133	and hormone effects on cardiovascular
ACOG. See American College of Obstetricians	system, 245
and Gynecologists	normal musculoskeletal, 304–305
Acoustic neuroma, 209	and perioperative care, 10–15
ACOVE (Assessing Care of Vulnerable Elders),	and stress response, 372-377
193	Aging athletes, 304–305
ACS. See Acute coronary syndromes; American	AGS-Hartford Foundation Project, 2-4
College of Surgeons	AHCPR. See Agency for Health Care Policy
Activities of daily living	and Research
after hip fracture, 321	AHRQ. See Agency for Healthcare Research
range of motion necessary for, 304	and Quality
wrist range of motion and strength necessary	Alcohol abuse
for, 323	preoperative assessment, 22
Activities of Daily Vision Scale (ADVS), 180,	screening for, 63–64 Alendronate, for osteoporosis, 253
188, 190	Allergic rhinitis, 213
Acupuncture, 278	Allostasis, 373–374
Acute care, transfers from, 387	Allostatic load, 373, 376
Acute coronary syndromes, 67–69, 69 , 70	$5-\alpha$ -reductase inhibitors, for BPH, 281
interventions for, 76	Alternative medicine, 382, 382
Acute illness, recovery from, 344	Alzheimer's disease. See also Dementia
Acute pain management, postoperative, 29–32 Acute surgery, cardiac, 168	estrogen replacement therapy and, 245–247, 247
Adaptive techniques, 347, 351–352	hearing loss and, 207–208
Adolescence, and bone mass, 252	sexual dysfunction and, 288
Adrenal malignancy, 286	smell sensitivity and, 212-213
α_1 -Adrenoceptor antagonists, for BPH, 281	visual loss and, 183
Adrenocortical hormones, 374	Ambulation, early or ultra-early postoperative,
Advance directives, 396	376 , 408–409

American Academy of Ophthalmology (AAO),	patient-controlled, 30-31, 35 , 381, 382
3	postoperative, 39
Preferred Practice Pattern (PPP) for cataract,	regimes for elderly patients, 35
187 Duestoned Duestics Dattons (DDD) for	route of administration, 31
Preferred Practice Pattern (PPP) for Comprehensive Adult Eye Evaluation,	scheduled dosing, 35
186–187	strategies for, 38
Preferred Practice Pattern (PPP) for	in surgical patients, 35 Androgen replacement
glaucoma, 190–191	in elderly women, 235
Preferred Practice Pattern (PPP) on low	short-term, 376
vision, 193	Anesthesia, geriatric, 9–52
American Academy of Orthopaedic Surgeons	chronic pain therapy and, 38
(AAOS), 3	intraoperative management, 22-28
research priorities for falls, 357–358 American Academy of Otolaryngology-Head	key research questions, 39–40
and Neck Surgery (AAO-H&NS), 3	literature review methods, 9
American Academy of Physical Medicine and	physiologic management, 25–26
Rehabilitation (AAPM&R), 3	postoperative management, 28–36 regional versus general, 23–25, 24 <i>f</i>
American Cancer Society, 112	requirements for, 14, 15f
recommendations for prostate cancer	risk assessment, 16–17
screening, 282	Aneurysm, abdominal aortic, 102–103, 103
American College of Cardiology guidelines for	Angina, 67–68
preoperative cardiac evaluation, 17 American College of Emergency Physicians	Seattle Angina Questionnaire, 166
(ACEP), 3	Angiogenesis, 372
American College of Obstetricians and	Angiographic procedures, 28
Gynecologists (ACOG), 3, 238	Angioplasty, 155
American College of Surgeons (ACS), 4	Bypass Angioplasty Revascularization
Major Trauma Outcome Study, 71	Investigation (BARI) trial, 151 coronary artery bypass grafting after, 155
Office of Evidence-Based Surgery, 4	in octogenarians, 164, 165 , 166
practice guidelines, 394	percutaneous transluminal coronary
Tumor Registry, 105 American Gastroenterological Association	angioplasty (PTCA), 148, 151, 165 , 166
(AGA), 133	risks of reintervention, 155
American Geriatrics Society (AGS), 2	Ankle
official relationships with specialty societies,	arthritis of, 317
3–4	degenerative disease of, 316–317, 317 fractures of, 316
research priorities for falls, 357–358	total arthroplasty, 317
Section for Surgical and Medical Specialties,	Ankle fusion, 317
3, 4 American Heart Association guidelines for	Ankle reconstruction, 317
preoperative cardiac evaluation, 17	Antagonistic pleiotropy, 370–371
American Society of Anesthesiologists (ASA),	Antibiotic therapy
3, 86	adverse drug events, 31, 32t
Physical Status Score (ASA-PS), 384	postoperative, 27, 34
practice guidelines, 394	preoperative, 27
American Urological Association (AUA), 3,	for urinary tract infections, 280
275	Anticholinergic drugs, 278 Anticoagulation
Americans with Disabilities Act, 342 Amputation, 304, 356	adverse drug events, 32t
Anabolism, 34	with mechanical valvular prostheses, 157
Analgesia	perioperative termination of, 27
adverse drug events, 31, 32t	Antineoplastics, 32t
as-needed, 35	Antiplatelet therapy, 26
complications, 35	Antipsychotics, 32t
and functional outcomes, 38	Antithrombotic therapy, 26
nonopioid adjunctive drugs, 35	Aortic dissection, 159–160, 159–160
oligoanalgesia, 60	Aortic surgery, 18, 19f

A	
Aortic valve replacement, 156	Asymptomatic Carotid Atherosclerosis Study
minimally invasive techniques, 157–158	(ACAS), 99
in octogenarians, 164	Atherosclerotic disease
quality of life after, 167	Asymptomatic Carotid Atherosclerosis Study
APDS. See Association of Program Directors in	(ACAS), 99
Surgery	of lower extremities, 100–101
Apoptosis, 371, 372	vascular, 99
Arrhythmias, 161	Athletes, aging, 304–305
Arterial grafts, 159	Atlantic Philanthropies, 4
_	Atrial arrhythmias, postoperative, 161
Arthritis. See Osteoarthritis	Attitude, in rehabilitation, 345
Arthroplasty	AUA. See American Urological Association
hemiarthroplasty, 310	Auditory brain-stem response (ABR) testing,
for femoral neck fractures, 320	205–206
functional outcomes in, 314	Auditory rehabilitation measures, 410
for hip fracture, 319, 322	Auditory system, 203–210
for proximal humerus fractures, 324-325	Axillary lymph node dissection, 89, 91
total ankle, 317	rixinary rymph node dissection, 65, 61
total hip, 307, 308	_
for femoral neck fractures, 320	В
preoperative testing, 18, 19–20, 19f	Bacillus-Calmette-Guérin, for bladder cancer,
surgical approaches, 313	285
total knee, 309, 313 , 314	Bacteruria, asymptomatic, 278–280, 280
total shoulder, 310, 314	Bailey-Lovie logMAR, 178
Arthroscopy, 313	Balance. See also Falls
for knee and shoulder injuries, 305	foot and ankle problems and, 317, 317
of osteoarthritic knee, 309	limb shortening and, 321
ASA. See American Society of	total knee arthroplasty and, 314
Anesthesiologists	treatment of age-related problems, 211-212
Aspiration	Balance disorders, 210–212
•	targeted treatment, 219
perioperative, 27–28 perioperative with dementia, 396	Balance exercise, 349
•	Baltimore Longitudinal Study of Aging, 204,
postoperative, 29, 34	245, 282
Aspirin, 245	BARI trial. See Bypass Angioplasty
Assessment	Revascularization Investigation trial
of abuse, 56	Barrett's cancer, 125
clinical outcomes, 383–390	Beaver Dam Eye Study, 178, 181, 182
comprehensive, 60–61	Behavioral Risk Factor Surveillance System
in emergency department, 60–64	(BRFSS), 237
of home environment, 56	Behavioral therapy
lung cancer, 121	for postoperative depression, 405
neurobehavioral, 163	for urinary incontinence, 277
preoperative, 15–22, 22 , 39	Benign esophageal disease, 133–134
of visual loss, 178–180, 180	Benign lung diseases, 122–123
Assessment instruments	
HRQOL measures, 180, 410, 410 , 411	Benign paroxysmal positional vertigo (BPPV),
for lung cancer, 121	
for pain, 35 , 38	Benign prostatic hyperplasia, 280–282
quality-of-life instruments targeting	needed research in, 284
vulvovaginal conditions, 233	phytotherapy for, 281, 285
for urinary incontinence, 277	surgery for, 281, 284, 285
Assistive devices, 353	β -Blockers, in elderly surgical patients, 26
for arthritic and musculoskeletal conditions,	Biliary disease, 97–98, 98
358	Binocular inhibition, 189
cardiac, 150	Biobehavioral therapy for urinary incontinence,
Assistive technology, 345 , 351–352	273–274, 277
Association of Program Directors in Surgery	Biology of aging, 371
(APDS), 3	Bisphosphonates, 251–252 , 253–254, 254

Black Americans, and cervical cancer screening, 237	stroke after, 162, 163 summary, 168
Bladder cancer, 285, 286	distal, 101
Bladder neck suspension	lower-extremity, 100–101, 102
for female stress incontinence, 275–276	•
longevity, 278	\mathbf{C}
Bleeding diathesis, postoperative, 35	CABG. See Coronary artery bypass grafting
Blindness, legal, 179	Cache County Study, 245
Blood cell counts, preoperative, 19–20	CAGE questionnaire, 61–62, 63–64
Blood transfusions, perioperative, 27 Blue Mountains Eye Study, 184	Calcium supplements, 252–253, 253
Blunt trauma, 74, 75 , 76	CAM. See Confusion Assessment Method Cambodians, 237
Bone	Cancer
implant fixation in, 325	bladder, 285, 286
medications that reduce resorption of, 254	breast, 88–91, 91 , 239–241
medications that stimulate formation of, 254	cervical, 236–239, 239
strategies to augment healing of, 316	colorectal, 95–96, 96
Bone fusion, 316	esophageal, 123–133, 132
Bone insufficiency, 317–318	estrogen replacement therapy and, 247–249
Bone loss, 317 Bone mass, peak, 252	gastric, 92–94, 94
Bone matrix, 252	head and neck, 216–218, 218 , 219 lung, 112–121, 121
Bone mineral density, 320	pancreatic, 98, 99
Bone void filler, 322	pharyngeal, 218
BPH. See Benign prostatic hyperplasia	prostate, 282–284, 285
Bradycardia, postoperative, 35	tongue, 218
Brain Resuscitation Clinical Trials data, 69	vaginal, 239
Breast cancer, 88–91	vulvar, 233, 234
Collaborative Group on Hormonal Factors in Breast Cancer, 248	Capnography, 28–29
estrogen replacement therapy and, 248, 249,	Cardina assist davisas 150
249	Cardiac assist devices, 150 Cardiac care patterns, 149
recent research findings, 90	Cardiac complications, intraoperative, 26
selective estrogen receptor modulators and,	Cardiac rehabilitation, 356, 358
248, 249	Cardiac surgery, geriatric, 147-176. See also
therapy of, 91	specific procedures
Breast cancer screening, 239–241	areas of investigation, 154–155
Breast density, mammographic, 241 Breast reconstruction, 90	changing pattern of patients undergoing,
BRFSS. See Behavioral Risk Factor	147–150
Surveillance System	complications, 160–161, 161 exclusion criteria for, 168
British Geriatrics Society research priorities for	functional outcomes, 169
falls, 357–358	geriatric pathways, 149
British Journal of Cancer, 216–217	key research questions, 169-170
Bypass Angioplasty Revascularization	length of hospital stay after, 150
Investigation (BARI) trial, 151	literature review methods, 147
Bypass surgery	minimally invasive techniques, 161
cardiopulmonary, 154 , 155 , 160, 163 coronary artery, 149–150 , 150–154, 154 ,	neurobehavioral assessment tools after, 163 neurocognitive deficits after, 169–170
155	neurologic deficits and, 162–163
changing pattern of patients undergoing,	octogenarian patients, 163–166, 165–166
147–148	perioperative care, 170
complications of, 160	physiologic management, 25
neurobehavioral changes after, 163, 163	predictive models, 150
in octogenarians, 163–165, 165–166	quality of life after, 166–168, 168
on- and off-pump, 154, 155 , 159	reoperative, 158–159
quality of life after, 167	risk factors for stroke in, 163
reoperative, 158, 158–159	risk profiles, 149

stroke and, 162–163, 169–170 total costs, 149	Cholecystectomy, 97 laparoscopic, 97–98
Cardiac transplantation, 148–149	open, 98
Cardiopulmonary arrest, 69–70, 70	outpatient or short-stay vs longer hospital
Cardiopulmonary bypass	stay, 98
CABG with and without, 163	Chronic disease, perioperative management of,
complications, 160	382
techniques for, 154, 155	Chronic obstructive pulmonary disease, 122
Cardiopulmonary function, preoperative, 390	CABG in, 153–154
Cardiovascular drugs, 32t	lung volume reduction procedures for, 123
Cardiovascular Health Study, 245	Chronic pain, 36–37, 37–38
Cardiovascular system	and sexual dysfunction, 287
and estrogen replacement, 241–245, 244–245	Clinical outcomes assessment, 383–390
hormone effects on, 245	Clinical pathways
intraoperative complications, 26–27	for cardiac surgery, 149
and perioperative care, 11	perioperative, 400–407
Care delivery models, 413–419	Cochlear implantation, 210
Caregivers, 345	Cognitive impairment
identification of unfulfilled needs by, 416	delirium and, 405
surgical treatment and, 168	educational strategies for partners of patients
Carotid disease screening, 100	with, 236
Carotid endarterectomy, 99, 100, 100	in emergency department, 57–58, 58
CABG preceded by, 163	fall-prevention interventions in, 359
regional versus general anesthesia for, 25	and length of stay, 386 management of, 58
Catabolism, postoperative, 34	measures of, 404
Cataract, 187–189	pain assessment in, 35 , 38
Cataract surgery, 188–189	pain management in, 35, 38
functional outcomes, 189	postoperative, 32–34, 381, 405
preoperative testing, 20	preoperative assessment, 22
Catecholamines, 374	screening tests for, 58
Catheter-based interventions for coronary artery	Cognitive status
disease, 149–150	estrogen replacement and, 247
Celecoxib, 306–307. See also COX-2 inhibitors	in gynecologic surgery, 227
Cellular senescence, 371, 372	Colectomy, elective, 96
Cementless components, in total hip	Collaborative Group on Hormonal Factors in
replacement, 313	Breast Cancer, 248
Center for Medicare and Medicaid Services,	Colon cancer
105 , 122	estrogen therapy and, 247-249, 249
Centers for Disease Control and Prevention,	screening for, 249
238	Colorectal cancer, 95–96, 96
definition of health-related quality of life, 407	Colorectal disease, 94–96, 96
discharge statistics, 122	Commission on Accreditation of Rehabilitation
Central auditory testing, 210	Facilities, 345
Cerebral protection techniques, 160	Communication, 55
Cerebrovascular disease, 99–100, 100 . <i>See also</i>	among care settings, 416
Stroke	of drug regimens to primary care physicians
Cerumen impaction, 204	35
Cervical cancer screening, 236–239, 239	problems, 416
Cervical-spine decompressive surgery, 316	Complementary (alternative) medicine, 382,
Cervical spondylotic myelopathy, 315	382
Cesarean section, and pelvic organ prolapse,	Complementary therapy
231 Chart main (7, 69	for urge or mixed urinary incontinence, 278
Chest pain, 67–68	for urinary incontinence, 274
Seattle Angina Questionnaire, 166	Compliance with recommendations, 62
Chest x-ray, preoperative, 18–19, 19–20	lack of, 416
Childbirth delivery routes, and pelvic organ	Comprehensive eye evaluation and screening,
prolapse, 231	186–187

Comprehensive geriatric assessment, 60–64, 62	Cost-effectiveness
Compression fractures, vertebral, 323–324	of assistive technology, 345
Compression hip screws, 319	of cardiac surgery, 149
-	
Computed tomography screening, for cancer,	of cervical cancer screening, 237, 238
121	of disability treatment, 343
Computer-assisted decision support systems, 60	of falls-prevention strategies, 359
Confusion. See also Delirium; Dementia	of fracture treatment, 318
chronic pain therapy and, 38	of interdisciplinary teams, 416
postoperative, 35	of medications for frail elderly women, 254
Confusion Assessment Method (CAM), 33, 401	of reducing environmental hazards, 181
in emergency department care, 57–58	of surgical care, 86
serial testing with, 35	of transfers from acute-care facilities to other
Congestive heart failure	health-care facilities, 387
cardiac assist devices for, 150	of vision screening, 187
etiology, 150	of vision stabilization or improvement, 191
	COX-2 inhibitors
surgery for, 148–149	celecoxib, 306–307
Consent for resuscitation, 396	·
Constipation	effects on fracture healing, tissue healing, and
chronic pain therapy and, 38	bony ingrowth, 313
postoperative, 35	for esophageal cancer, 125
Constraint therapy, 350	for osteoarthritis, 306
Continuity of care, 415, 416	rofecoxib, 306–307
Coordination of care	Cranberry juice, and UTIs, 279–280
postoperative, 414	Cross-cutting issues, 369–419
postoperative drug regimens, 35	Cryoablation, in liver-directed therapy, 97
strategies that foster, 416	Cumulative Illness Rating Scale, 354
Coping strategies in rehabilitation, 345	
Coronary angioplasty, percutaneous transluminal	D
(PTCA), 148, 151	
in octogenarians, 165 , 166	Day surgery, 28–29
Coronary artery bypass grafting, 149–150 ,	Deconditioning, 357
150–154, 154	Deep-vein thrombosis. See also
	Thromboembolism
after angioplasty, 155	in joint replacement surgery, 310–312
benefit predictors, 155	perioperative clinical pathways, 400
with cardiopulmonary bypass, 163	prophylaxis, 404
after carotid endarterectomy, 163	prophylaxis after total joint replacement or
changing pattern of patients undergoing,	hip fracture, 314
147–148	Degenerative disease
complications, 160, 161	of foot and ankle, 316–317, 317
conduit use, 155	of joints, 306–307, 312–314
minimally invasive techniques, 154, 155	surgical treatment of, 307–314
neurobehavioral changes after, 163, 163	of spine, 315–316, 316
in octogenarians, 163–165, 165 , 166	Dehydroepiandrosterone, 374, 376
on- and off-pump, 154, 155 , 159	Delirium
operative mortality, 385	biochemical basis for, 404
quality of life after, 167	and cognitive decline, 405
reoperative, 158, 158 , 159	drug therapy, 404
risk factors, 155	
stroke after, 162, 163	in emergency care, 57–58, 58
summary, 168	and length of stay, 386
	and perioperative aspiration, 396
C	
Coronary artery disease, 150–155, 155 , 168	postoperative, 32–34, 35
catheter-based interventions versus CABG	postoperative, 32–34, 35 anti-delirium strategies for, 396
catheter-based interventions versus CABG for, 149–150	postoperative, 32–34, 35 anti-delirium strategies for, 396 with dementia, 396
catheter-based interventions versus CABG for, 149–150 changing pattern of patients undergoing	postoperative, 32–34, 35 anti-delirium strategies for, 396 with dementia, 396 after hip fracture treatment, 320
catheter-based interventions versus CABG for, 149–150 changing pattern of patients undergoing surgery for, 147–148	postoperative, 32–34, 35 anti-delirium strategies for, 396 with dementia, 396 after hip fracture treatment, 320 after outpatient surgery, 404
catheter-based interventions versus CABG for, 149–150 changing pattern of patients undergoing surgery for, 147–148 recurrent, 158	postoperative, 32–34, 35 anti-delirium strategies for, 396 with dementia, 396 after hip fracture treatment, 320
catheter-based interventions versus CABG for, 149–150 changing pattern of patients undergoing surgery for, 147–148 recurrent, 158 Coronary stents, 152	postoperative, 32–34, 35 anti-delirium strategies for, 396 with dementia, 396 after hip fracture treatment, 320 after outpatient surgery, 404 perioperative clinical pathways, 401–402 predisposing and precipitating factors, 404
catheter-based interventions versus CABG for, 149–150 changing pattern of patients undergoing surgery for, 147–148 recurrent, 158	postoperative, 32–34, 35 anti-delirium strategies for, 396 with dementia, 396 after hip fracture treatment, 320 after outpatient surgery, 404 perioperative clinical pathways, 401–402

prevention of, 36, 404	DNR orders. See Do-not-resuscitate orders
undiagnosed, 57–58, 58	Do-not-resuscitate (DNR) orders, 392, 394
vision treatments and, 186	Domain Management Model, 415
visual improvement or stabilization and, 194	Donors, kidney, older adults as, 290-291
visual loss and, 183, 186	Driving impairment
Delivery of care models, 413-419	vision loss and, 184–186, 185–186
Delivery routes, and pelvic organ prolapse, 231	visual improvement or stabilization and, 194
Dementia	Drug abuse, 380–381, 382
in emergency care, 57–58, 58	Drug-ethanol interactions, 382
hearing loss and, 207–208	Drug regimens. See also Medications;
with postmenopausal hormone use, 247	Pharmacotherapy
with postoperative delirium, 396	communicating to primary care physicians,
preoperative diagnosis of, 35	35
quality-of-life instruments in, 410	simplifying, 35
sexual dysfunction and, 288	Drug withdrawal, 381, 382
visual improvement or stabilization and, 194	Duke Activity Status Index, 167
visual loss and, 183, 183	Duke Established Populations for
Depression	Epidemiologic Studies of the Elderly, 245,
postoperative, 402, 405	380
preoperative assessment, 22	DVT. See Deep-vein thrombosis
screening for, 63	Dyspareunia secondary to urogenital atrophy, 236
visual improvement or stabilization and, 194	
visual loss and, 182–183, 183 , 186 Detrusor hyperactivity with impaired	Dysphagia, 133, 214, 215
Detrusor hyperactivity with impaired contractility, 272	T
Diabetes Control and Complications Trial, 192	E
Diabetes drugs, 32t	Early Lung Cancer Action Project, 114
Diabetic control, 192–193	Early treatment diabetic retinopathy study
Diabetic macular edema, 192–193	(ETDRS) chart, 178 Education
Diabetic retinopathy, 191–193, 192–193	
early treatment diabetic retinopathy study	of elderly patients, 358 for partners of cognitively impaired patients,
(ETDRS) chart, 178	236
proliferative, 192–193	preoperative, 394–395, 397
Diabetic Retinopathy Study, 192	to reduce inappropriate medications, 60
Digital rectal examination, 282, 285	Elder abuse, 56 , 64
Disability, 344	Elder Protection Service, 64
aerobic exercise and, 353	Elderly drivers
causes of, 343	mandatory vision screening of, 185
conceptual framework for, 339	traffic accidents by, 185, 186, 194
development in elderly persons, 359	vision loss in, 184–186, 185–186
diagnostic methods, 343	visual improvement or stabilization in, 194
key outcomes for measurement, 358	Elderly Lung Cancer Vinorelbine Italian Study
risk factors, 345 , 358	(ELVIS), 114
societal effects, 344–345	Elective surgery
timing of treatment for, 344	cardiac, 168
treatment costs, 343	nutritional supplementation for, 396
treatment patterns, 360	survival rates, 86
Discharge instructions, emergency department,	Electrical stimulation, for fracture healing, 321
60 Di dalamatan	Electrocardiography, preoperative, 19
Distal bypass, 101	Electrolytes
Distal femur fractures, comminuted, 314	adverse drug events, 32t
Diverticular disease, 94–95, 96	management of, in surgical patients, 396
Diverticulitis, 94	preoperative, 19–20
Diverticulosis, 94	ELVIS. See Elderly Lung Cancer Vinorelbine
Dizziness	Italian Study
etiology, 210–211	Emergency department (ED) care. See also
evaluation and treatment, 212	Emergency medicine
targeted treatment, 219	discharge instructions, 60

environment of, 55 , 55–56	cognitive detriment with, 247
family caregiving and, 416	Heart and Estrogen/progestin Replacement
micro-environment of, 55 , 56	Study (HERS), 237–238
patterns of use, 54–55, 55	long-term, 251
process alterations, 75–76	selection of older women for initiation or
Emergency medical service (EMS), 56	continuation of, 255
Emergency medicine, geriatric, 53–83	stratified results, 249
for cognitive impairment, 57	Estrogen replacement therapy, 241-249
comprehensive assessment, 60–64	and Alzheimer's disease, 245-247, 247
comprehensive screening of older patients, 62	and breast cancer, 248, 249, 249
functional assessment, 58–59, 59	and cancer, 247–249
for functional impairment, 59	cardiovascular benefits and risks, 244-245
general geriatric emergency care, 54–60	and cardiovascular disease, 241-245,
identification of high-risk patients, 104	244–245
immunization programs, 67	cardiovascular effects, 245
key research questions, 75–76	and cognition, 247
literature review methods, 53–83	and colon cancer, 248, 249, 249
medication use, 59–60	Heart and Estrogen/progestin Replacement
patterns of emergency department use, 54–55, 55	Study (HERS), 242
quality of care of older patients, 55	low-dose, 251
screening, 60–64, 64	mammographic density related to, 241
specific clinical syndromes, 65–75	neuroprotective effects, 247
surgery for peptic ulcer disease, 93	oral, 235–236
surgical procedures, 87	for osteoporosis, 251–252
Emphysema, 122	and perioperative morbidity, 228
Empyema, 122–123, 123	postmenopausal, 249
End-stage renal disease, 269	dementia associated with, 247
Endocrine disease, 87–88	long-term, 247 quality of data, 242, 245–246, 247–248
Endocrine response, 374–377	quality of life with, 251
Endovascular repair, 103	results, 242–244, 246
Endovascular therapy, 101	selection of older women for initiation or
Endurance exercise, 349	continuation of, 255
Enoxaparin, after joint replacement, 311-312	and sexual function in older women,
Environment	235–236
emergency department, 55 , 55–56	short-term, 376
risk factors for disability, 345	stratified results, 245, 247
Environmental hazards, 181	synergy with fracture-prevention
EORTC. See European Organization for	interventions, 251
Research and Treatment of Cancer	transdermal, 235-236
Epidemiology, of surgical outcomes, 21	and urogenital symptoms, 233
Equipment, rehabilitation, 347	vaginal, 279
Errors, 415, 416	Estrogen status, 227
Erythropoietin therapy, perioperative, 27	Estrogen therapy, 242
Esophageal cancer, 123–133	after breast cancer treatment, 249
chemoprevention, 132	and colon cancer, 249
surgery for, 125–126, 132	dosage, 242, 243–244
Esophageal disease, benign, 133–134	and gynecologic surgery, 228
Esophageal dysplasia, 132	long-term, 251
Esophageal resection, 125, 130	for osteoporosis, 250–251
Esophagectomy, 125–131, 132	and pelvic organ prolapse surgery, 231
minimally invasive, 127, 132 Established Populations for the Enidemiologic	postmenopausal, 249
Established Populations for the Epidemiologic	quality of data, 242
Studies of the Elderly, 184 Estrogen progestin replacement therepy, 242	results, 242–243
Estrogen-progestin replacement therapy, 242	stratified results, 249
and Alzheimer's disease, 246	thrombogenic effects, 245
and breast cancer, 248, 249	transdermal, 251
and cognition, 247	and urogenital symptoms, 233

Estrogens	polypharmacy and, 35
esterified, 251	postoperative, 35 , 405
modified, 247–249	research priorities, 357–358
ETDRS chart. See Early treatment diabetic	risk factors for, 313 , 403, 405
retinopathy study chart	visual improvement or stabilization and, 194
Ethanol-drug interactions, 382	visual loss and, 180–181, 181
Ethical issues, 392–394	Falls prevention, 402–403, 405
Etidronate, for osteoporosis, 253, 254	programs, 66
European Carotid Surgery trial, 99	rehabilitation interventions, 357–358, 359
European Organization for Research and	strategies, 318
Treatment of Cancer (EORTC), 129	Family caregiving, 413, 416
EuroQol measure, 409	Feeding, postoperative, 34
Eustachian tube dysfunction, 205, 205	Female sexual dysfunction, 287, 289, 289
Evidence-based medicine, 414	Female stress incontinence, 275–276
Office of Evidence-Based Surgery (ACS), 4	Femoral fractures, 314 , 319, 320
in perioperative care, 415	Fever, in older emergency department patients,
Exercise	67, 70
aerobic (endurance), 349, 353	Fibrinolytic therapy, intrapleural, 122–123
for arthritic and musculoskeletal conditions,	FIM. See Functional Independence Measure
358	FIT. See Fracture Intervention Trial
balance, 349	Flexibility exercise, 350
benefits of, 307, 347–348, 353	Fluid management
combinations of treatments, 353	preoperative, 391–392
comparison of types, 351	before surgery, 27–28
flexibility, 350	in surgical patients, 396
functionally based, 350–351	Follow-up, 62
habituation, 349	Folstein Mini-Mental Status Examination
modes of delivery, 353	(MMSE), 208, 401
for osteoarthritis, 354, 355, 358	in emergency department care, 57, 58
for osteoporosis, 354–355	Food and Drug Administration (FDA), 274
pelvic floor muscle, 231	Foot deformity, 317
for prevention of falls, 359	Foot disease
resistance, 348–349	degenerative, 316–317
resistive, 353	fungal, 317
task-specific, 350	Foot reconstruction, 317, 317
types of, 347–348, 353	Fracture healing, 326
Exercise-based cardiac rehabilitation, 358	aging and, 316
Exercise programs, 347	COX-2 inhibitors and, 313
External auditory canal diseases, 204	electrical stimulation and, 321
Extracorporeal shock-wave lithotripsy, 289	strategies to augment, 316
Extremities, normal range of motion of, 304	ultrasound and, 321
Eye disorders, 187–193	Fracture Intervention Trial (FIT), 253
Eye evaluation, comprehensive, 186–187	Fractures, 318
Τ.	of ankle, 316
F	comminuted distal femur, 314
FACT-L. See Functional Assessment of Cancer	of hip, 318–322
Therapy-Lung	deep-vein thrombosis prophylaxis after,
Faculty Development and Residency Training	314
Outreach Program, 4	outcomes after surgery, 17, 17t
Falls, 409. See also Balance	total knee arthroplasty and, 314
assessment of home environment and, 56	literature review methods, 304
bone insufficiency and, 317–318	low-dose estrogen replacement therapy and,
chronic pain therapy and, 38	251
emergency department management of, 66	optimization of outcomes, 326
hip or knee osteoarthritis and, 313	periprosthetic, 312, 313
joint replacement surgery and, 313 low-vision rehabilitation and, 181	protective factors, 314
ocular disorders and, 181	risk factors for, 314
ocuiai disorders and, 101	postoperative mortality, 385

prayantion interventions 251	C
prevention interventions, 251 of proximal humerus, 324–325, 325	G
SERMs after age 75 and, 252	Gait
of spine, 318, 323–324	foot and ankle problems and, 317, 317
total joint replacement treatment of, 318, 318	limb shortening and, 321
vertebral compression, 323–324	total knee arthroplasty benefits, 314
of wrist, 318, 322–323	Gamma nails, in hip fracture treatment, 319
Frailty	Gastric concer 02 04 04
rehabilitation treatment of, 357	Gastric cancer, 92–94, 94 Gastric disease, 93
untreated vulvovaginal symptoms in, 234	·
Framingham study, 203, 204, 207, 208	Gastric resection, 93
Function overall. See also Functional outcomes	Gastroesophageal reflux disease
low-vision rehabilitation and, 184	recent research findings, 93
visual loss and, 184	surgery for, 91–92, 133–134, 134 Gastrointestinal procedures, emergency, 86
Functional assessment	Gellhorn pessaries, 230
in emergency department care, 58-59, 59	Gene therapy, for inoperable coronary artery
preoperative, 17–18, 22	disease, 154
Functional Assessment of Cancer Therapy-Lung	General surgery, geriatric, 85–109. See also
(FACT-L), 114	specific disorders, procedures
Functional decline	key research questions, 104–105
assessment of home environment in, 56	literature review methods, 85
cataract surgery and, 188–189	Genitourinary disorders, 270–292, 293
vision loss and, 184 Functional impairment	Genitourinary malignancies, 285–286
in older emergency department patients, 59	Geriatric Depression Scale, 61-62, 63
visual improvement or stabilization and, 194	Geriatric Emergency Medicine Task Force, 55
Functional Independence Measure (FIM), 354,	Geriatric teams. See also Interdisciplinary teams
386	referral to, 62
Functional outcomes, 384-385, 387. See also	Geriatric trauma survival score, 72
Function overall; Independence	Geriatrics Education for Specialty Residents
analgesia and, 38	(GESR) program, 4 Geriatrics for Specialists project. <i>See</i> Increasing
in cardiac surgery, 169	Geriatrics Expertise in Surgical and Related
in cataract surgery, 189	Medical Specialties
in diabetic retinopathy, 192–193 early identification and treatment of risk	Geriatrics Syllabus for Specialists, 4
factors and, 387	GESR program. See Geriatrics Education for
in glaucoma, 190, 191	Specialty Residents program
in gynecologic surgery, 227, 254–255	"Get Up and Go"; test, 403
in hemiarthroplasty, 314	Glasgow Coma Scale, 57, 72, 73
in hospitalization, 385	Glaucoma, 190–191, 191
low-vision therapy and, 193	Glenohumeral joint change, degenerative, 310
measures of, 384–385	Goldman Cardiac Risk Index, 227
multisensory loss and, 182	Gonadal steroids, and surgical stress, 375
ocular disorders and, 182	Graft materials, 323
postoperative cognitive decline and, 404 preoperative interventions to enhance, 396	Grafts. See also Coronary artery bypass grafting
preoperative predictors, 387	arterial, 159 saphenous vein, 155
in rotator cuff surgery, 314	Growth hormone
in shoulder disease, 314	pituitary, 375
in total shoulder replacement, 314	short-term replacement, 376
in trauma, 73	Gynecologic surgery, 227
visual loss and, 179–180	cognitive status, 227
Functional problems, 408–412	comorbidities, 227
Functional reserve, 10, 10 <i>f</i>	epidemiology, 226
Functional urinary incontinence, 272	estrogen status, 227
Functional visual impairment, 195	estrogen therapy and, 228
Fungal disease, of foot, 317	functional outcomes, 227, 254–255

guidelines for selecting candidates, 228	Hearing measures, in elderly surgical patients,
interventions for reducing risks in, 227	410
morbidity and mortality, 226-227	Hearing-related quality of life, 218
perioperative management, 225-228	Hearing tests, 209 , 210
quality of data, 226	Heart and Estrogen/progestin Replacement
quality-of-life outcomes, 227, 228	Study (HERS), 237–238, 242
results, 226–227	Heart failure, congestive
risk factors for complications, 227	cardiac assist devices for, 150
risks, 228	etiology, 150
stratified outcomes, 227	surgery for, 148–149 Heart valve surgery, 155–158, 159
summary, 227	HELP. See Hospitalized Elderly Longitudinal
Gynecology, geriatric, 225–267. See also	Project Prospitalized Elderly Zongitadinal
specific disorders, procedures	Hematocrit, intraoperative, 26
key research questions, 254–255 literature review methods, 225	Hemiarthroplasty, 310
nonsurgical management, 227	for femoral neck fractures, 320
nonsargrear management, ==:	functional outcomes in, 314
**	for hip fracture, 319, 322
H	for proximal humerus fractures, 324–325
Habituation exercises, 349	Hepatic artery infusion, in liver-directed
Hallux valgus, 316	therapy, 97
John A. Hartford Foundation, 2 Geriatric Emergency Medicine Task Force, 55	Herpes zoster, in geriatric population, 37
Jahnigen Career Development Award	HERS. See Heart and Estrogen/progestin
program, 4	Replacement Study Hip disease, degenerative, 307–308
official relationships with specialty societies,	Hip fracture rehabilitation, 356, 358
3–4	Hip fracture surgery
Head and neck cancer, 216-218, 218 , 219	hemiarthroplasty, 319, 322
Health Care Financing Administration (HCFA),	length of stay for, 386
122	outcomes, 17, 17 <i>t</i>
Health Care Utilization Project, 131–132	physical therapy after, 358
Health-related quality of life, 407–412	postoperative restrictions on ambulation, 358
definition of, 407	risk factors for, 321
diabetic retinopathy and, 192	Hip fractures, 318–322
incontinence and, 411	clinical management strategies, 321
postoperative sleep disturbances and, 410 targeted interventions for, 416	deep-vein thrombosis prophylaxis after, 314 factors that influence postoperative outcome,
visual impairment and depression and, 183	305
Health-related quality-of-life (HRQOL)	intertrochanteric, 319, 322
measures, 180, 384, 407–408, 410	literature review methods, 304
barriers to application of results, 410	malnutrition and, 305, 306
condition-specific instruments, 411	risk factors for, 306
procedure-specific assessments, 410	total knee arthroplasty and, 314
questions about sexuality, 410	UTIs in, 279
Hearing aids, 203–204	Hip osteoarthritis, 307, 313
bilateral versus unilateral, 209	Hip protectors, 319
in-the-canal, 208	Hip replacement
Hearing loss	hemiarthroplasty
and Alzheimer's disease, 207	for femoral neck fractures, 320 for hip fracture, 319, 322
and dementia, 207–208 epidemiology, 203–204	total arthroplasty, 307, 308
eustachian tube dysfunction and, 205, 205	for femoral neck fractures, 320
high-frequency, 204	preoperative testing, 18, 19–20, 19f
ocular disorders associated with, 182	surgical approaches, 313
patient-based outcomes measures of, 210	Hip surgery. See also Hip fractures; Hip
sensorineural, 205–210, 210	replacement
unilateral versus bilateral, 205	nutritional deficiencies and, 306
visual loss and, 182	nutritional supplementation for, 306

regional versus general anesthesia for, 23, 25	I
revision, 313	Identification of Seniors at Risk (ISAR) tool,
History, in older emergency department	61–62, 62 , 62 <i>t</i>
patients, 66	ILG. See Interdisciplinary Leadership Group
Home safety	Imaging studies
assessment of, 56	in older emergency department patients, 66
improvements, 181, 181	in urinary incontinence, 277–278
interventions for prevention of falls, 359	Immune modulators, topical, 234
Homeostenosis, and surgical stress, 373–374	Immunization, emergency department-based, 6 7
Hormone replacement therapy. See also	Immunologic response, 375–377
Estrogen replacement therapy	Immunosuppression, perioperative, 27
androgen replacement	Impact of Vision Impairment questionnaire, 18
in elderly women, 235	Implant fixation in osteoporotic bone, 325
short-term, 376	Implantable hearing aids, 209
Hormone therapy	Implantation, cochlear, 210
for osteoporosis, 250–252, 254	In-the-canal (ITC) hearing aids, 208
for prostate cancer, 284	Incontinence. See Urinary incontinence
for wound healing, 379, 379 Hospital-acquired infections, 161	
Hospital care	Increasing Geriatrics Expertise in Surgical and
fall-prevention interventions, 359	Related Medical Specialties, 2, 3–4
functional outcomes in, 385	Statement of Principles, 3 Increasing Geriatrics Expertise in the
inpatient rehabilitation, 386	Non-Primary Care Specialties, 2
length-of-stay issues, 386	Independence. See also Function overall;
patient satisfaction with, 386–387	Functional outcomes
process issues, 386	low-vision rehabilitation and, 184
simplifying drug regimens, 35	return to independent living, 387
visual improvement or stabilization and, 194	Infectious disease, 66–67
visual loss and, 186, 186	hospital-acquired, 161
Hospital Elder Life Program, 408–409	in joint replacement surgery, 312
Hospital length of stay, 386	in older emergency department patients, 67
cardiac surgery, 150	perioperative, 27
cholecystectomy, 98	periprosthetic, 314
early identification and treatment of risk factors and, 387	urinary tract infections, 278–280, 280
laparoscopic antireflux surgery, 87	key research questions, 293
vision treatments and, 186	literature review methods, 270 wound, 27
visual loss and, 186	Information for patients. See also Patient
Hospitalized Elderly Longitudinal Project	education
(HELP), 392	patient preferences, 397
Hyaluronate, and degenerative knee disease,	preoperative, 397
307, 312 , 313	Informed consent, 393–394
Hydronephrosis, 231	outcomes of surgical management and, 393
Hylan, and degenerative knee disease, 307,	Infrainguinal vascular reconstruction, 101
312, 313	Injection therapy
Hyperparathyroidism, 87, 88	for erectile dysfunction, 289
Hyperplasia, 379	for stress incontinence, 275
Hypoestrinism, 233, 233	for total knee arthroplasty, 313
Hypotension	Injuries, 70
perioperative, 27–28	sports-related, 305
postoperative, 35	Injury Severity Score (ISS), 71
postural, 38	Institutionalized populations
Hypovolemia, preoperative, 28	falls among, 318
Hypoxia postoperative, 28	frail, untreated vulvovaginal symptoms in,
ventilatory response to, 11, 12 <i>f</i>	guidelines for selecting candidates for
Hysterectomy, 238–239	gynecologic surgery from among, 228
11,50010010111y, 250-257	gynecologic surgery from among, 220

	11 11 200 200 255
Hospitalized Elderly Longitudinal Project (HELP), 392	Knee osteoarthritis, 308–309, 355 and falls, 313
Instrumental activities of daily living, 304	hylan and hyaluronate for, 312
Instrumental Activities of Daily Living index,	Knee replacement
189	regional versus general anesthesia for, 25
Intensive care unit length of stay, 387	total arthroplasty, 309, 313 , 314
Interdisciplinary Leadership Group (ILG), 3	Koenig Scale, 63
Interdisciplinary teams composition and structure of, 416	T
function of, 416	L The state of the
and process of care, 413	Laboratory examination, in older EM patients,
referral to geriatric teams, 62	66
team approach to rehabilitation, 353	Laparoscopic antireflux surgery, 134 short hospital stay, 87
International Continence Society, 275	Laparoscopic cholecystectomy, 97–98
Intertrochanteric hip fracture repair, 322	Laparoscopic colectomy, elective, 96
Intracavernosal injections, 289	Laryngeal malignancy, 216
Intraoperative management, 22–28, 26–28	Larynx, 215–216
Invasive monitoring	Laser therapy
in blunt multiple trauma, 76	for proliferative diabetic retinopathy and
for older trauma patients, 74, 75	diabetic macular edema, 192-193
Iowa Women's Health Study, 243	transmyocardial revascularization, 154
ISAR tool. See Identification of Seniors at Risk	Le Fort colpocleisis, 228
tool	Legal blindness, 179
ISS. See Injury Severity Score Isshiki technique, for presbylarynges, 216	Leisure World, 245, 248
Italian Longitudinal Study on Aging, 245	Leisure World Cohort, 243
Ivor Lewis esophagectomy, 125	Lichen sclerosus, 233, 234
Tvoi Zewis esephageetemy, 120	Limb ischemia, critical, 101
T	Limb salvage, 100–101, 101, 102
Jahnisan Canaar Davalanmant Assaula 4	Limb shortening, 321 Lingonberry juice, and UTIs, 279–280
Jahnigen Career Development Awards, 4 Joint replacement	Literature reviews, RASP 6. See also specific
complications of, 310–312	topics
COX-2 inhibitors and, 313	Lithotripsy, extracorporeal shock-wave, 289
deep-vein thrombosis prophylaxis after, 314	Liver-directed therapies, 97
factors that influence postoperative outcome,	Liver resection, 96–97
305	Liver tests, preoperative, 19–20
and falls risk, 313	Lobectomy, 115–116, 118–119
for fractures close to joints, 318, 318	video-assisted techniques for, 121
hemiarthroplasty, 310	Logarithm of MAR (logMAR), 178
for femoral neck fractures, 320	Longitudinal Study on Aging, 271
functional outcomes in, 314	Low-output syndrome, 150
for hip fracture, 319, 322	Low vision, 179, 193
for proximal humerus fractures, 324–325	rehabilitation for, 181 , 184 , 194 therapy for, 193
thromboembolism in, preventive regimens, 314	Lower extremity atherosclerotic disease,
total hip arthroplasty, 307, 308	100–101
for femoral neck fractures, 320	Lower-extremity bypass, 100–101, 102
preoperative testing, 18, 19–20, 19f	Lumbar spinal stenosis, 315
surgical approaches, 313	Lumpectomy, 89
total knee arthroplasty, 309, 313 , 314	Lung cancer, 112–121
total shoulder arthroplasty, 310, 314	age-specific outcomes of surgery for, 132
	assessment instruments, 121
V	Early Lung Cancer Action Project, 114
K Vidnov See Panal transplantation	Elderly Lung Cancer Vinorelbine Italian
Kidney. See Renal transplantation	Study (ELVIS), 114
Knee	guidelines to indicate inoperability, 119
arthroscopy for injuries of, 305 degenerative disease of, 308–309	screening for, 113–114, 121 surgery for, 114–120, 121
degenerative disease of, 500-509	buigory 101, 117-120, 121

Lung disease, benign, 122–123	inappropriate use, 380-381, 382
Lung function	outcomes of, 60
and coronary artery bypass grafting, 153–154,	reduction of, 60
154	misuse, overuse, and underuse of, 380-381
and perioperative care, 11-12	optimization of use, 382
Lung Health Study, 122	perioperative, 14, 381–382
Lung resection, 115–120, 121	polypharmacy, 35
Lung volume reduction procedures, 123	perioperative, 382
Lymph node dissection, axillary, 89, 91	for postoperative depression, 405
	and sexual dysfunction, 235
M	simplifying drug regimens, 35
Macular degeneration, age-related, 189–190,	that reduce bone resorption, 254
190	that stimulate bone formation, 254
Macular edema, diabetic, 192-193	for urinary incontinence, 274, 277
Major Trauma Outcome Study (ACS), 71	and vestibular disease, 212
Male menopause, 375	Melbourne (Australia) Visual Impairment
Male sexual dysfunction, 286–287, 289	Project, 178
Malignancy. See also Cancer	Memory Study (Women's Health Initiative),
genitourinary, 285–286	246
laryngeal, 216	Ménière's disease, 208–209
urologic, 293	Meniscectomy, 313
Malnutrition	Menopause
in hip fracture, 305, 306	male, 375
screening methods, 396	postmenopausal estrogen therapy, 249
after surgery, 34	dementia associated with, 247
Mammary artery, coronary artery bypass	long-term, 247 Mental status tests
through, 155	Confusion Assessment Method (CAM), 33,
Mammographic density, 241	401
Mammography screening, 90, 91 , 240	in emergency department care, 57–58
clinical guidelines for, 249	serial testing with, 35
guidelines for discontinuation of, 241	Folstein Mini-Mental Status Examination
strategies to improve, 241	(MMSE), 208, 401
Massachusetts Health Care Panel Study, 184	in emergency department care, 57, 58
Massachusetts Male Aging Study, 286–287	short, 35
Massed activity, in stroke rehabilitation, 350, 351	Short Portable Mental Status Questionnaire,
	58
Mastectomy, 89 Masters and Johnson, 234	Metabolic response to stress, 374–377
Mechanical valvular prostheses, 157	Metal-backed or all-polyethylene tibial
Meclizine, for vestibular disease, 212	components, 314
Medical errors, 415, 416	Methylsalicylate cream, for degenerative joint
Medical Outcomes Study Short Form-36	disease, 307
(SF-36), 384, 407	Metoclopramide, for postoperative nausea, 382
functional assessment, 17	Mexican-Americans, and cervical cancer
HRQOL assessment, 180	screening, 237
Medicare reimbursements	Middle ear diseases, 204–205
for Pap smears, 239	Minimum angle of resolution (MAR), 178
for rehabilitation care, 352	Mitral valve repair, 156
Medications, 59–60	Mitral valve replacement, 156
adverse drug events	minimally invasive techniques, 158
associated with drug withdrawal, 381	in octogenarians, 164
postoperative, 31, 32 <i>t</i> , 35	Mixed urinary incontinence, 278
for benign prostatic hyperplasia, 281	MMSE. See Folstein Mini-Mental Status
communicating regimens to primary care	Examination
physicians, 35	Mobility, postoperative, 408–409
ethanol interactions, 382	Mobility aids, 359
for frail elderly women, 254	Models of care delivery, 413–419
guidelines for prescribing, 382	Molecular biology studies, 218

MORE. See Multiple Outcomes of Raloxifene Evaluation	Neurotology, 208–209 New York Heart Association, 227
Multicenter Chest Pain Study, 68 Multiple blunt trauma, 76	NHLBI. See National Heart, Lung, and Blood Institute
Multiple ocular disorders, 181	NHS. See Nurses' Health Study
Multiple-organ failure, 75	Nocturia, 272, 277
Multiple Outcomes of Raloxifene Evaluation	Nonagenarians
(MORE), 248, 250, 251	as cardiac surgical patients, 163–164
Multisensory loss, 182	estrogen replacement therapy for, 247
Muscle wasting, 34	Noncompliance, 416
Musculoskeletal problems	Nonsteroidal anti-inflammatory drugs, 92
exercise, assistive devices, and orthotics for,	alternatives to, 94
358	for osteoarthritis, 306
normal aging, 304–305 rehabilitation for, 354–355, 358	North American Symptomatic Carotid
Myocardial infarction, 68	Endarterectomy Trial (NASCET), 25, 99 North Carolina Trauma Registry, 71
Myocardial protective techniques, 155 , 158	Northeastern Ohio Trauma Study, 70–71
Myocardial revascularization, 164	Northern New England Cardiovascular Disease
•	Study Group, 414
N	Nothing-by-mouth orders, 27–28
NASCET. See North American Symptomatic	Nottingham Health Profile, 166
Carotid Endarterectomy Trial	Nottingham Health Survey, 409
National Cancer Institute, 248	Nurses' Health Study (NHS), 242, 243, 248
lung cancer study, 113	Nursing-home residents. See also
National Cardiovascular Network, 164	Institutionalized populations
National Emphysema Treatment Trial (NETT),	falls among, 318
122	Nutritional assessment, preoperative, 20, 390–391
National Eye Institute Visual Functioning	Nutritional deficiencies, 306
Questionnaire (NEI-VFQ), 180, 190	Nutritional supplementation
National Heart, Lung, and Blood Institute	for elective surgery, 396
(NHLBI), 122	for hip surgery, 306
National Hospital Ambulatory Medical Care	Nutritional support
Survey (NHAMCS), 54, 55	postoperative, 34
National Hospital Discharge Survey, 71 National Institutes of Health (NIH)	preventive, 396
consensus statement on rehabilitation with	
traumatic brain injury, 354	0
treatment recommendations, 88	Occupational therapy, 254
National Medicare claim database, 126, 131	Octogenarians
National Registry of Myocardial Infarction 2,	as cardiac surgical patients, 163–166, 165
68	estrogen replacement therapy for, 247
National VA Surgical Quality Improvement	Ocular disorders
Program, 105	associated with hearing loss, 182
Nausea and vomiting, postoperative, 381–382	and falls, 181
NEI-VFQ. See National Eye Institute Visual	and functional outcome, 182 multiple, 181
Functioning Questionnaire Nerve cell loss, 372	Older-old, surgical outcomes in, 387
NETT. See National Emphysema Treatment	Oldest-old, surgical outcomes in, 387
Trial	Olfactory sensitivity, 212–213
Neurobehavioral assessment tools, 163	Oligoanalgesia, 60
Neurobehavioral changes after CABG, 163,	Onychomycosis, 316
163	Open colectomy, elective, 96
Neurologic changes	Ophthalmology, geriatric, 177–202
deficits after cardiac surgery, 162-163,	age-related risk factors, 177
169–170	key research questions, 194–195
perioperative, 12–13	literature review methods, 177–178
and sexual dysfunction, 288	prognostic indicators, 177

recommended research strategies, 193–194	Oxygen therapy
risk factors, 177	guidelines for, 28–29
Oral estrogen replacement, 235–236	postoperative, 34
Organizational characteristics, 416	for wound healing, 379
Orientation Memory Concentration Test, 57	
Orthopedic surgery	
factors that influence postoperative outcome,	P
305, 305	Pain, 409–410
postoperative mortality, 385	abdominal, 65 , 65–66, 70 , 76
	acute postoperative, 29–32
postoperative respiratory insufficiency, 28	chest, 67–68
Orthopedics, geriatric, 303–338. See also	chronic, 36–37, 37–38
specific disorders, procedures	and sexual dysfunction, 287
key research questions, 325–326	perioperative with dementia, 396
literature review methods, 303-304	Pain assessment, in cognitive impairment, 35 ,
Orthotic devices, 347	38
for arthritic and musculoskeletal conditions,	Pain management, 358
358	in cognitive impairment, 35 , 38
indications for, 317	interventions, 37
Osteoarthritis, 306–307	postoperative, 29–32
of ankle, 317	Pain syndromes, 36, 359
assistive devices for, 358	Pancreatic cancer, 98, 99
exercise for, 354, 355, 358	Pancreatic disease, 98–99
of hip, 307, 313	Pancreatic resection, 98
of knee, 308–309, 355	Papanicolaou (Pap) smears, 236–239, 239
and falls, 313	Paraprofessionals, in rehabilitation, 353
hylan and hyaluronate for, 312	Patient-based outcomes measures. See also
orthotics for, 358	Outcomes assessment
rehabilitation for, 354–355	of hearing loss, 210
Osteoporosis, 250–254. See also Fractures	Patient care process, 386
additive effects of hormonal and	Patient-controlled analgesia (PCA), 30-31, 35,
nonhormonal therapies, 254	381, 382
bisphosphonates for, 253–254	Patient education, 358. See also Information
calcium for, 252–253, 253	for patients
cementless components in, 313	for partners of cognitively impaired patients,
definition of, 317	236
estrogen replacement therapy for, 251-252	preoperative, 394–395, 397
exercise for, 354–355	to reduce inappropriate medications, 60
hormonal therapies, 250–252, 254	Patient satisfaction, 386–387, 387 , 416
implant fixation in, 325	Pelvic floor muscle exercises, 231
nonhormonal therapies for, 252–253, 253–254	Pelvic organ prolapse, 228–231, 231
spinal fusion with instrumentation in,	early, 231
315–316	needed research in, 276
vitamin D for, 252–253	nonsurgical management, 229, 230, 230
Otitis media, serous, 205	quality of data, 228–229
Otolaryngology, geriatric, 203-224. See also	results, 229–230
specific disorders, procedures	surgical management, 229, 230, 230 , 231
key research questions, 218–219	Penetrating trauma, 73–74, 378
literature review methods, 203	Penile prostheses, 289
Otologic surgery, 204, 205	Peptic ulcer disease, 93, 93
Otosclerosis, 204, 205	Percutaneous transluminal coronary angioplasty
Outcomes, epidemiologic studies of, 21	(PTCA), 148, 151
Outcomes assessment, 383–390	in octogenarians, 165, 166
measures for surgery, 396	Perioperative care
patient-based measures of hearing loss, 210	age-related physiologic changes and, 10-15
Outpatient surgery, 87	in cardiac surgery, 170
delirium after, 404	in chronic disease and comorbid conditions,
Overflow incontinence, 271–272	382

clinical pathways for, 400–407	Pneumonia, 122
estrogen replacement therapy in, 228	postoperative, 27 , 34
evidence-based medicine to improve, 415	Polyethylene tibial components, 314
in gynecologic surgery, 225–228, 228	Polypharmacy, 35
temperature management, 27	perioperative, 382
in thoracic surgery, 136	Post-herpetic neuralgia, 37
Peripheral occlusive disease, 100–102, 102	Post-hospital care, 414–415, 416
Peripheral vestibular system disorders, 219	Posterior tibial tendon insufficiency, 316
Periprosthetic fractures, 312, 313 , 314	Postoperative management, 28–36
Periprosthetic infections, 314	assessment in lung cancer, 121
Pessaries, 230, 231	ethical issues, 394
Pharmacology, geriatric, 380–383	factors that influence outcome, 305–306
Pharmacotherapy, 59–60	planning and coordination, 414 research agenda, 34–36
for benign prostatic hyperplasia, 281	Postoperative mortality, 385, 387
communicating regimens to primary care	Postural hypotension, 38
physicians, 35	Prehospital care, 56, 56
for frail elderly women, 254	Preoperative assessment, 15–22, 21–22 ,
guidelines for prescribing medications, 382	390–399
inappropriate use of medications, 60 ,	functional, 17–18, 22
380–381, 382	in general surgery, 39
medications that reduce bone resorption, 254	in lung cancer, 121
medications that stimulate bone formation,	testing, 18–21, 19 <i>f</i>
254	Preoperative education, 394–395, 397
misuse, overuse, and underuse of	Preoperative interventions, 396
medications, 380–381, 382	Preoperative optimization, 21
perioperative, 14, 381–382	in lung cancer, 121
for postoperative depression, 405	for pneumonectomy, 121
and sexual dysfunction, 235	Preoperative preparation, 390–399
simplifying drug regimens, 35 for urinary incontinence, 274, 277	in thoracic surgery, 135
and vestibular disease, 212	Presbycusis, 205 , 205–210
Pharyngeal cancer, 218	Presbylarynges, 216
· ·	Pressure ulcers, 103, 103
Pharyngeal instrumentation, postoperative, 34 Phenylpropanolamine, for stress incontinence,	postoperative, 405
274	prevention, 403–404
Phonosurgery, 216	Preventive nutrition, 396
	Primary care physicians, communicating drug
Physical examination in older emergency	regimens to, 35
Physical examination, in older emergency	Profile of Mood States, 189
department patients, 66 Physical therepists, types of 346	Promethazine, for postoperative nausea,
Physical therapists, types of, 346 Physical therapy, See also Pehchilitation	381–382
Physical therapy. See also Rehabilitation	Prostate cancer, 282–284
for frail elderly women, 254 after hip fracture surgery, 358	screening for, 282, 284, 285
for musculoskeletal conditions, 358	treatment of, 285
referral for vestibular disease, 212	Prostate diseases, 280–285
synergy with hormone replacement therapy	key research questions, 293
and selective estrogen receptor	literature review methods, 269
modulators, 251	Prostate-specific antigen, 282, 285
Physician training, 55	Prostatectomy, radical, 283
Phytotherapy, 281, 284, 285	Prostatic hyperplasia, benign, 280–282
Picker Institute Consumer Satisfaction Survey,	Prosthetics, 347
387	cellular response to wear debris, 313
Pinna, diseases of, 204	costs and benefits, 359
Pituitary growth hormone, 375	mechanical valvular, 157 metal-backed or all-polyethylene tibial
Planning, postoperative, 414	components, 314
Pleiotropy, antagonistic, 370–371	penile, 289
Pneumonectomy, 115–119, 121	periprosthetic fractures, 312, 313 , 314
1 neumonecomy, 113–117, 121	peripresencie fractures, 312, 010, 014

Proximal humerus fractures, 324–325, 325	RASP. See Research Agenda-Setting Project
literature review methods, 304	Reactive oxygen species, 371
Psychological Well-Being Schedule, 166	
	Recovery from acute illness, 344
Pulmonery ambeliam 404	Rectal examination, 285
Pulmonary embolism, 404	Referral to geriatric teams, 62
Pulmonary Embolism Prevention (PEP) trial,	Reflux
311	gastroesophageal reflux disease
Pulmonary function	recent research findings, 93
and coronary artery bypass grafting, 153–154,	surgery for, 91–92, 133–134, 134
154	laparoscopic antireflux surgery, 87
and perioperative care, 11–12	short hospital stay, 87
Pulmonary resection, 115–120, 121	Rehabilitation, geriatric, 339–367
Pulse oximetry, 28–29	auditory rehabilitation measures, 410
	cardiac, 356, 358
Q	combinations of treatments, 353
Quality improvement	components of, 345 , 345–353
	equipment, 347
methodologies, 414	* *
systems interventions for, 413	family caregiving and, 416
in thoracic surgery, 134–135	hip fracture, 356, 358
Quality of care	inpatient, 386
barriers to and disparities in, 416	interventions, 347–352
for older emergency department patients, 55	key components, 358
Quality of life, 387	key research questions, 359–361
with bisphosphonates, 251	literature review methods, 339
after cardiac surgery, 166–168, 168	low-vision, 181 , 194
early detection of cervical neoplasia and, 239	Medicare reimbursements, 352
early identification and treatment of risk	outcome measures, 360–361
factors and, 387	outcomes of care, 352–353
with estrogen replacement therapy, 251	patient satisfaction with, 386–387
health-related, 407–412	post-stroke, 355
diabetic retinopathy and, 192	process of care, 347–352
targeted interventions for, 416	providers, 346, 353
visual impairment and depression and, 183	relative merits of treatments, 360–361
hearing-related, 218	response to, 344
mammography and, 241	after rotator cuff surgery, 310
presbycusis and, 206–207	settings, 345, 352
in prostate cancer, 283	for specific conditions, 353–359
with selective estrogen receptor modulators,	structure, process, outcome rehabilitation
251	model, 343, 344f
thoracic surgery outcomes, 136	structure of care, 345–347
visual improvement or stabilization and, 194	team approach, 353
vulvovaginal disorders and, 233	terminology, 343 , 360–361
Quality-of-life instruments	theoretical underpinnings, 339–345
health-related (HRQOL), 180, 384, 407–408,	theory or model of treatment for, 345
410, 410 , 411	visual rehabilitation measures, 410
targeting vulvovaginal symptoms, 233	Renal cell carcinoma, 285
Quality of Well-being Scale, 189	Renal changes, perioperative, 13–14
	Renal disease, end-stage, 269
R	Renal failure
Radial artery, coronary artery bypass through,	guidelines for prescribing with, 382
155	key research questions, 293
Radiofrequency ablation, in liver-directed	Renal insufficiency, perioperative, 27–28
therapy, 97	Renal malignancy, 285, 286
Radiotherapy for breast cancer, 89	Renal transplantation, 290–292, 292
Raloxifene	key research questions, 290–292, 292
and breast cancer, 248	literature review methods, 269
for osteoporosis, 250, 251	older adult recipients, 201, 202
Rancho Bernardo cohort, 245	older adult recipients, 291–292

Research Agenda-Setting Project (RASP), 4–5,	colon cancer, 249
369–370	colorectal cancer, 96
online version, 7	comprehensive, 62
Resistance exercise, 348–349	for diabetic retinopathy, 192
Resistance training, 307	in emergency department, 60–64
Resistive exercise, 353	
*	esophageal dysplasia, 132
task-specific, 350	glaucoma, 191
Respiratory failure, postoperative, 34	Identification of Seniors at Risk (ISAR) tool,
Respiratory insufficiency, postoperative, 28–29	61–62, 62 , 62 <i>t</i>
Respiratory monitoring, postoperative, 34	lung cancer, 113–114, 121
Respiratory response to hypoxia, 11, 12f	mammography, 90, 91 , 240
Resuscitation	clinical guidelines for, 249
aggressive	guidelines for discontinuation of, 241
in blunt multiple trauma, 76	strategies to improve, 241
in older trauma patients, 74–75, 75	prostate cancer, 282, 284, 285
Brain Resuscitation Clinical Trials data, 69	for specific conditions, 63–64, 64
consent for, 396	vision, 186–187, 195
do-not-resuscitate (DNR) orders, 392, 394	mandatory, 185
in operating room, 394, 396	recommendations for, 187
for out-of-hospital arrest, 70	Seattle Angina Questionnaire, 166
preoperative discussion of, 396	Sedative-hypnotics
of trauma patients, 74	adverse drug events, 31, 32t
Return to independent living, 387	and length of stay, 386
Revascularization, repeat, 159	Sedimentation rate, preoperative, 19–20
Rhinitis, 213	SEE project. See Salisbury Eye Evaluation
Risedronate, for osteoporosis, 253–254	project
Rofecoxib, 306–307. See also COX-2 inhibitors	SEER program. See Surveillance,
Ross procedure, 157	Epidemiology, and End Results Program
Rotator cuff disease, 309	Selective estrogen receptor modulators, 242
Rotator cuff surgery, 309, 310, 314	and breast cancer, 248–249, 249
, , , , , , , , , , , , , , , , , , ,	cardiovascular effects, 245
	and colon cancer, 249
S	fracture benefits after age 75, 252
SAEM. See Society for Academic Emergency	long-term, 249 , 251
Medicine Medicine	for osteoporosis, 250, 251, 251–252
Safety	quality of data, 242
home safety assessment, 56	quality of life with, 251
home safety improvements, 181, 181	results, 244
	selection of older women for initiation or
interventions for prevention of falls, 359	continuation of, 255
SAGA. See Society for the Advancement of Geriatric Anesthesia	stratified results, 249
SAGES. See Society of American	synergy with fracture-prevention
	interventions, 251
Gastrointestinal Endoscopic Surgeons	· · · · · · · · · · · · · · · · · · ·
Salisbury Eye Evaluation (SEE) project, 178,	Sensorineural hearing loss, 205–210, 210
184	Sensory disorders, 408
Saphenous vein graft, coronary artery bypass	Sexual dysfunction, 286–289
through, 155	androgen replacement and, 235
Sarcopenia, 344 , 348	comorbid disease, 287–288, 289
rehabilitation treatment of, 357, 359	estrogen replacement and, 235–236
Scopolamine, for postoperative nausea, 381–382	female, 235 , 287, 289, 289
Screening	key research questions, 293
abdominal aortic aneurysm, 103	literature review methods, 269
for asymptomatic conditions, 64	male, 286–287, 289
breast cancer, 239–241	medications and, 235
carotid disease, 100	sildenafil and, 289
central auditory processing impairment, 210	Sexual response
cervical cancer, 236–239, 239	age-related changes, 235
cognitive dysfunction, 58	in older women, 236

Sexuality, 409, 410	Steroids, gonadal, and surgical stress, 375
educational strategies for partners of	Stomach disorders, 91–94, 94
cognitively impaired patients, 236	Stone disease, urinary tract, 289–290
older women's, 234–236, 235	
	key research questions, 293
operative procedures and, 410–411	literature review methods, 269–270
Shoe wear, 316	surgery for, 289–290, 290
Short Portable Mental Status Questionnaire, 58	Stress incontinence, 271–272
Shoulder disease. See also Rotator cuff disease	injection therapy for, 275
degenerative, 309–310	surgery for, 275–276
functional outcomes in, 314	Stress response, 372–377, 376 , 377
Shoulder injuries	<u></u>
arthroscopy for, 305	acute, 376
fractures of proximal humerus, 324–325	age-specific, 150
	postoperative, 376
Shoulder replacement	Stroke
hemiarthroplasty, 324–325	in cardiac surgery, 162–163, 163 , 169–170
total shoulder arthroplasty, 310, 314	perioperative, 99–100, 100
Sickness Impact Profile (SIP), 166, 188, 384,	post-CABG, 162, 163
407	Stroke rehabilitation, 350, 355, 358
Sildenafil citrate, 288, 289	STS. See Society of Thoracic Surgeons
Sinuses, 212–213	· · · · · · · · · · · · · · · · · · ·
Sinusitis, 213, 213	Study of Osteoporotic Fractures, 245
SIP. See Sickness Impact Profile	Study to Understand Prognoses and Preferences
	for Outcomes and Risks of Treatment
Sjögren's syndrome, 215	(SUPPORT), 392
Sleep apnea, 288	SUPPORT. See Study to Understand Prognoses
Sleep problems, 408	and Preferences for Outcomes and Risks of
postoperative disturbances, 410	Treatment
Smell, 212–213	Surgery, geriatric. See also specific procedures
Snellen testing, 178	for abdominal aortic aneurysm, 103
Social participation, 339	age-related physiologic changes and, 14–15
disabling impact of disease on, 344-345	age-specific risks, 395
risk factors for disability, 345	
Society for Academic Emergency Medicine	ambulation early or ultra-early after, 376 ,
(SAEM), 3	408–409
Geriatric Emergency Medicine Task Force, 55	anesthesia for, 23, 24f
	anti-delirium strategies for, 396
Society for the Advancement of Geriatric	for aortic dissection, 159–160, 159–160
Anesthesia (SAGA), 3	for benign diseases of lung, 122–123
Society of American Gastrointestinal	for benign prostatic hyperplasia, 281, 284
Endoscopic Surgeons (SAGES), 133	for breast cancer, 91
Society of Thoracic Surgeons (STS), 3–4, 132	candidate preventive and therapeutic methods,
Society of Thoracic Surgeons Database, 121	395
Society of University Urologists (SUU), 4	cardiac, 147–176, 149
Specialty databases, 7	and caregivers, 168
Speech therapy, 216	_
Spinal decompression, 315, 316, 316	cataract, 188–189, 189
Spinal fusion	cervical-spine decompressive, 316
with instrumentation, 315–316	cognitive decline after, 404
	comorbidities, 387
strategies to augment bone healing after, 316	complementary or alternative medicine and,
Spinal stenosis, 354–355	382
Spine, degenerative disease of, 315–316, 316	complications of, 168 , 387 , 396
Spine fractures, 318, 323–324	conduct of operation, 394
literature review methods, 304	costs of, 86
Spondylolisthesis, 315–316	for degenerative joint disease, 307–314
Spondylosis, 315–316	with dementia, 396
Sports-related injuries, 305	
*	for diabetic retinopathy, 192–193
Staff work, duplication of, 416	early
Stents	for urinary incontinence, 278
coronary, 152	for urologic disorders, 293
in octogenarians, 165	elective, 86, 396

emergency procedures, 87	for esophageal cancer, 132
for colorectal disease, 96	for mitral valve replacement, 158
for gastric disease, 93	for stone disease, 289–290, 290
identification of high-risk patients, 104	for valvular procedures, 157
for peptic ulcer disease, 93	neurotologic, 209
for esophageal cancer, 125–127, 130, 132	operative mortality, 385
esophagectomy model, 133	organizational characteristics and, 416
factors that influence postoperative outcome,	orthopedic, 305, 305
305–306	for osteoarthritis of hip, 307
family caregiving and, 416	otologic, 204, 205
for female stress incontinence, 275–276	outcome measures, 396
foot, 317, 317	outcomes of, 392–393
general, 85–109	outpatient, 87
key research questions, 104–105	delirium after, 404
literature review methods, 85	pain and adverse outcomes, 30-32
for GERD, 134	patient preferences for, 396
gynecologic, 225–228, 227 , 228 for head and neck cancer, 218	for pelvic organ prolapse, 229, 230, 230
*	estrogen therapy and, 231
heart valve, 155–158, 159 hip	perioperative care, 10–15
nutritional deficiencies and, 306	perioperative clinical pathways, 400-407
nutritional supplementation for, 306	perioperative problems and complications,
regional versus general anesthesia for, 23,	369
25	for pharyngeal cancer, 218
revision, 313	phonosurgery, 216
hip fracture, 319, 322	physiologic management, 25-26
length of stay for, 386	postoperative analgesia, 39
outcomes, 17, 17 <i>t</i>	postoperative complications, 387
physical therapy after, 358	postoperative depression, 405
postoperative restrictions on ambulation,	postoperative falls, prevention of, 405
358	postoperative function, scoring system for,
risk factors for, 321	395
for hyperparathyroidism, 88	postoperative management, 28–36
for incontinence, 231	postoperative mortality, 385, 387
interdisciplinary teams and, 416	postoperative planning and coordination, 414 postoperative pulmonary complications,
intraoperative management, 22–28, 26–28 joint replacement	39–40
complications of, 310–312	postoperative research agenda, 34–36
COX-2 inhibitors and, 313	preoperative assessment, 15–22, 39
deep-vein thrombosis prophylaxis after,	preoperative interventions, 396
314	
	preoperative optimization, 21
	preoperative optimization, 21 preoperative predictors of functional
factors that influence postoperative outcome, 305	preoperative optimization, 21 preoperative predictors of functional outcomes, 387
factors that influence postoperative	preoperative predictors of functional outcomes, 387
factors that influence postoperative outcome, 305	preoperative predictors of functional
factors that influence postoperative outcome, 305 and falls risk, 313	preoperative predictors of functional outcomes, 387 preoperative preparation, 395 , 397
factors that influence postoperative outcome, 305 and falls risk, 313 for fractures close to joints, 318 thromboembolism in, preventive regimens, 314	preoperative predictors of functional outcomes, 387 preoperative preparation, 395 , 397 preoperative research agenda, 21–22 preoperative risk assessment and preparation, 390–399
factors that influence postoperative outcome, 305 and falls risk, 313 for fractures close to joints, 318 thromboembolism in, preventive regimens, 314 laparoscopic antireflux, 87 , 134	preoperative predictors of functional outcomes, 387 preoperative preparation, 395 , 397 preoperative research agenda, 21–22 preoperative risk assessment and preparation, 390–399 preoperative risk factors for falls, 405
factors that influence postoperative outcome, 305 and falls risk, 313 for fractures close to joints, 318 thromboembolism in, preventive regimens, 314 laparoscopic antireflux, 87 , 134 for lumbar spinal stenosis, 315	preoperative predictors of functional outcomes, 387 preoperative preparation, 395 , 397 preoperative research agenda, 21–22 preoperative risk assessment and preparation, 390–399 preoperative risk factors for falls, 405 preventive nutrition for high-risk patients,
factors that influence postoperative outcome, 305 and falls risk, 313 for fractures close to joints, 318 thromboembolism in, preventive regimens, 314 laparoscopic antireflux, 87 , 134 for lumbar spinal stenosis, 315 for lung cancer, 114–120, 121 , 132	preoperative predictors of functional outcomes, 387 preoperative preparation, 395 , 397 preoperative research agenda, 21–22 preoperative risk assessment and preparation, 390–399 preoperative risk factors for falls, 405 preventive nutrition for high-risk patients, 396
factors that influence postoperative outcome, 305 and falls risk, 313 for fractures close to joints, 318 thromboembolism in, preventive regimens, 314 laparoscopic antireflux, 87 , 134 for lumbar spinal stenosis, 315 for lung cancer, 114–120, 121 , 132 minimally invasive techniques	preoperative predictors of functional outcomes, 387 preoperative preparation, 395 , 397 preoperative research agenda, 21–22 preoperative risk assessment and preparation, 390–399 preoperative risk factors for falls, 405 preventive nutrition for high-risk patients, 396 procedures and outcomes, 85–87
factors that influence postoperative outcome, 305 and falls risk, 313 for fractures close to joints, 318 thromboembolism in, preventive regimens, 314 laparoscopic antireflux, 87 , 134 for lumbar spinal stenosis, 315 for lung cancer, 114–120, 121 , 132 minimally invasive techniques for aortic valve replacement, 157–158	preoperative predictors of functional outcomes, 387 preoperative preparation, 395 , 397 preoperative research agenda, 21–22 preoperative risk assessment and preparation, 390–399 preoperative risk factors for falls, 405 preventive nutrition for high-risk patients, 396 procedures and outcomes, 85–87 for prostate cancer, 283
factors that influence postoperative outcome, 305 and falls risk, 313 for fractures close to joints, 318 thromboembolism in, preventive regimens, 314 laparoscopic antireflux, 87 , 134 for lumbar spinal stenosis, 315 for lung cancer, 114–120, 121 , 132 minimally invasive techniques for aortic valve replacement, 157–158 for benign diseases of lung, 123	preoperative predictors of functional outcomes, 387 preoperative preparation, 395 , 397 preoperative research agenda, 21–22 preoperative risk assessment and preparation, 390–399 preoperative risk factors for falls, 405 preventive nutrition for high-risk patients, 396 procedures and outcomes, 85–87 for prostate cancer, 283 for proximal humerus fractures, 324–325,
factors that influence postoperative outcome, 305 and falls risk, 313 for fractures close to joints, 318 thromboembolism in, preventive regimens, 314 laparoscopic antireflux, 87 , 134 for lumbar spinal stenosis, 315 for lung cancer, 114–120, 121 , 132 minimally invasive techniques for aortic valve replacement, 157–158 for benign diseases of lung, 123 for benign prostatic hyperplasia, 285	preoperative predictors of functional outcomes, 387 preoperative preparation, 395 , 397 preoperative research agenda, 21–22 preoperative risk assessment and preparation, 390–399 preoperative risk factors for falls, 405 preventive nutrition for high-risk patients, 396 procedures and outcomes, 85–87 for prostate cancer, 283 for proximal humerus fractures, 324–325, 325
factors that influence postoperative outcome, 305 and falls risk, 313 for fractures close to joints, 318 thromboembolism in, preventive regimens, 314 laparoscopic antireflux, 87 , 134 for lumbar spinal stenosis, 315 for lung cancer, 114–120, 121 , 132 minimally invasive techniques for aortic valve replacement, 157–158 for benign diseases of lung, 123 for benign prostatic hyperplasia, 285 for bladder and renal malignancy, 286	preoperative predictors of functional outcomes, 387 preoperative preparation, 395 , 397 preoperative research agenda, 21–22 preoperative risk assessment and preparation, 390–399 preoperative risk factors for falls, 405 preventive nutrition for high-risk patients, 396 procedures and outcomes, 85–87 for prostate cancer, 283 for proximal humerus fractures, 324–325, 325 recent research findings, 86–87
factors that influence postoperative outcome, 305 and falls risk, 313 for fractures close to joints, 318 thromboembolism in, preventive regimens, 314 laparoscopic antireflux, 87 , 134 for lumbar spinal stenosis, 315 for lung cancer, 114–120, 121 , 132 minimally invasive techniques for aortic valve replacement, 157–158 for benign diseases of lung, 123 for benign prostatic hyperplasia, 285 for bladder and renal malignancy, 286 for BPH, 282	preoperative predictors of functional outcomes, 387 preoperative preparation, 395 , 397 preoperative research agenda, 21–22 preoperative risk assessment and preparation, 390–399 preoperative risk factors for falls, 405 preventive nutrition for high-risk patients, 396 procedures and outcomes, 85–87 for prostate cancer, 283 for proximal humerus fractures, 324–325, 325 recent research findings, 86–87 resuscitation during, 394, 396
factors that influence postoperative outcome, 305 and falls risk, 313 for fractures close to joints, 318 thromboembolism in, preventive regimens, 314 laparoscopic antireflux, 87 , 134 for lumbar spinal stenosis, 315 for lung cancer, 114–120, 121 , 132 minimally invasive techniques for aortic valve replacement, 157–158 for benign diseases of lung, 123 for benign prostatic hyperplasia, 285 for bladder and renal malignancy, 286	preoperative predictors of functional outcomes, 387 preoperative preparation, 395 , 397 preoperative research agenda, 21–22 preoperative risk assessment and preparation, 390–399 preoperative risk factors for falls, 405 preventive nutrition for high-risk patients, 396 procedures and outcomes, 85–87 for prostate cancer, 283 for proximal humerus fractures, 324–325, 325 recent research findings, 86–87

risk factors, 87 , 387 , 395	Thoracoscopy, 123
stratified, 395	Thromboembolism. See also Deep-vein
risk factors for fluid and electrolyte problems,	thrombosis
396	intraoperative, 26–27 in joint replacement surgery, 310–312
rotator cuff, 309, 310, 314 scoring system for, 395	preventive regimens, 314
and sexuality, 410–411	Pulmonary Embolism Prevention (PEP) trial,
spinal decompression, 315, 316	311
stress of, 376	Thrombolytic therapy, 101
team function and, 416	Thyroid diseases, 87
thoracic, 111–145	Thyroid tests, preoperative, 19–20
for thyroid diseases, 87	Tibia components, metal-backed or
for tongue cancer, 218	all-polyethylene, 314
for urinary incontinence, 274–276, 277	Timed Get Up and Go test, 66
wrist fracture, 322	Tissue healing, 313
Surgical emergency, 104	Tongue cancer, 218
Surveillance, Epidemiology, and End Results	Topical immune modulators, 234
(SEER) Program, 88, 114, 131, 237	Toremifene, for breast cancer, 242
SUU. See Society of University Urologists	Total joint replacement
Swallowing, 213–215, 215	in ankle, 317
Sympathetic nervous system, 374	deep-vein thrombosis prophylaxis after, 314
Systems interventions, 413	for fractures close to joints, 318, 318
•	in hip, 307, 308, 313
TD.	for femoral neck fractures, 320
T	preoperative testing, 18, 19–20, 19f
T cells, 371–372, 372	surgical approaches, 313 in knee, 309, 313 , 314
Tai Chi, 349	in shoulder, 310, 314
Tamoxifen therapy	Traffic accidents, 185 , 186
for breast cancer, 88–89, 90, 91 , 248–249	visual improvement or stabilization and, 194
for osteoporosis, 250, 251	Transdermal estrogen replacement, 235–236
plus surgery, 89, 91	Transitional cell carcinoma
Tandem Gait test, 403	of upper urinary tract, 285
Task-specific resistive exercise, 350	of urinary bladder, 285
Team approach	Transmyocardial laser revascularization, 154
and outcomes, 416 and process of care, 413	Transplantation
referral to geriatric teams, 62	cardiac, 148–149
to rehabilitation, 353	renal, 290–292, 292
Temperature management, perioperative, 27	key research questions, 293 literature review methods, 269
Temporal bone pathology, 210	Transurethral resection of the prostate, 281
Temporal bone studies, 210, 212	early, 285
Tension-free vaginal tape, 276	needed research, 284
Terminology, rehabilitation, 343, 360-361	Trauma, 70–75
Testing. See also Assessment; Screening	blunt, 74
preoperative, 18–21, 19f	invasive monitoring and aggressive
Thoracic surgery, general geriatric, 111–145.	resuscitation in, 76
See also specific disorders, procedures	risk of multiple-organ failure and death
key research questions, 135–136	after, 75
literature review methods, 111–112	drug and ethanol interactions, 382
perioperative care, 136 preoperative preparation, 135	geriatric trauma survival score, 72 Major Trauma Outcome Study (ACS), 71
preoperative preparation, 195 preoperative testing, 18, 19f	North Carolina Trauma Registry, 71
quality-of-life outcomes, 136	Northeastern Ohio Trauma Study, 70–71
video-assisted, 120–121, 121 , 123	penetrating, 73–74, 378
Thoracic Surgery Directors Associations	prediction of outcomes, 75
(TSDA), 4	standardization of outcomes, 75

Trauma Score (TS), 71 TS. See Trauma Score TSDA. See Thoracic Surgery Directors Associations Tympanic membrane, diseases of, 204–205	literature review methods, 269–270 longitudinal outcomes, 294 U.S. Department of Health and Human Services, 7 U.S. Preventive Services Task Force, 186–187 UTIs. <i>See</i> Urinary tract infections
${f U}$	•
Ulcers, 92	V
peptic, 93, 93	Vacuum erection devices, 289
pressure, 103, 103	Vaginal cancer, 239
postoperative, 405	Vaginal delivery, and pelvic organ prolapse,
prevention of, 403–404	231
Ultrasound, for fracture healing, 321	Vaginal estrogen replacement, 279
Uniform Data System, 386	Vaginal tape, tension-free, 276
United Kingdom General Practice Research	Valve surgery, cardiac, 155–158, 159
Database, 245	Valvular prostheses, mechanical, 157
Upper abdominal surgery, 28	Vascular disease, atherosclerotic, 99
Urge incontinence, 272, 278	Vascular radiology, interventional, 101
Urinalysis, preoperative, 19–20 Urinary incontinence, 270–278, 409	Vascular reconstruction, infrainguinal, 101
assessment of, 277	Vascular repair, 372
biobehavioral therapies for, 273–274, 277	Vena cava filters, 404
complementary therapy for, 274, 278	Venous thromboembolism, 400
diagnostic evaluation, 272–273	Ventilatory response (V _I) to hypoxia, 11, 12f
early surgery for, 278	VERT trial. See Vertebral Efficacy with Risedronate Therapy trial
epidemiology, 270–271	Vertebral compression fractures, 323–324
functional, 272	Vertebral Efficacy with Risedronate Therapy
and health-related quality of life, 411	(VERT) trial, 253
imaging techniques, 277–278	Vertebroplasty, 323–324, 324
key research questions, 293 literature review methods, 270	Vertigo, 210–211
needed research in, 276–278	Vestibular system, 210–212, 212
pharmacotherapy for, 274, 277	peripheral, 219
postoperative, 283	Vestibular testing, 211, 212
surgery for, 231 , 274–277	Veterans Affairs, 413
survey instruments, 277	Veterans Affairs Medical Center, 283
treatment, 273–278	Veterans Health Administration, 355
types of, 271–272	Video-assisted thoracic surgery (VATS)
urodynamic studies, 277–278 Urinary retention	for empyema, 123 for lobectomy, 121
chronic pain therapy and, 38	for lung cancer, 120–121
postoperative, 35	Vinorelbine, for lung cancer, 114
Urinary tract infections, 278–280, 280	Vision
key research questions, 293	distance testing, 187
literature review methods, 270	low, 179, 193, 193
Urinary tract stone disease, 289	and outcomes, 178
Urodynamic studies, 277–278	stabilization or improvement of, 191 , 194
Urogenital atrophy, 236	Vision measures, 410
Urogenital health, 228–236	Vision screening, 63, 186–187, 195
estrogen therapy and, 233	mandatory, 185
maintenance of, 255 Urologic disorders, early surgery for, 293	recommendations for, 187 Visual acuity testing, 187
Urologic malignancy, 293	Visual Function Index, 188
Urology, geriatric, 269–302. See also specific	Visual-functioning index (VF-7), 179
disorders, procedures	Visual Functioning Scale (VF-14), 180, 188,
key research questions, 293–294	190

Visual loss assessment of, 178–180, 180 and dementia, 183, 183 and depression, 182–183, 183 and driving performance, 184–186, 185–186 and falls, 180–181, 181 functional, 195 and hearing loss, 182 intervention methods, 194 and length of hospital stay, 186, 186 and loss of independence or decreases in overall function, 184 measures and levels of, 178–179 measuring impact on functional ability, 179–180 measuring impact on visual function, 179 moderate, 193 outcome measures, 194 and overall function, 184 scope of the problem, 178 and specific geriatric conditions, 180–186 timing for intervention, 194 types associated with depression, 183 Visual measures, 194 Visual rehabilitation, 410	W Warfarin, for DVT prophylaxis, 311 WHI. See Women's Health Initiative Women's health androgen replacement, 235 estrogen replacement therapy, 241–249 gynecology, 225–267 Iowa Women's Health Study, 243 optimal time for calcium supplements, 253 osteoporosis, 250–254 routine care of well elderly women, 236–241 sexuality, 234–236, 235, 236 urogenital health, 228–236, 233 Women's Health Initiative (WHI), 243, 244 Memory Study, 246 World Health Organization, 272–273, 275 conceptual framework for disability, 339 Wound complications, 161, 161 Wound healing, 377–380, 379 Wound infection, postoperative, 27 Wrist fractures, 318, 322–323, 323 literature review methods, 304 Wrist range of motion and strength necessary for ADLs, 323
timing for intervention, 194 types associated with depression, 183 Visual measures, 194	literature review methods, 304 Wrist range of motion and strength necessary
Vitamin D supplements, 252–253, 253 Voice changes with aging, 215–216 Voice disorders, 216 Vulnerable elderly subgroups, 416	X Xerostomia, 214–215
Vulvar cancer, 233, 234 Vulvovaginal conditions, 232–234, 233 , 234	Zoster, acute, 37