

INDEX

A

- Adenocarcinoma, pancreatic ductal. See *Pancreatic ductal adenocarcinoma*.
- Affordable Care Act of 2010, 177, 184
- American Board of Surgery, Residency Training Restructuring Committee of, 280
- Antibiotics, oral, characteristics of, for colon surgery, 143–145
to prevent surgical site infections following colon surgery. See *Colon surgery, surgical site infections following*.
- Anticoagulants, oral, new, 378–386
- Apixaban, 378–380
- Arteriovenous fistula, acquired, etiology of, 83–84
management of, 93–95
arteriography in, 91, 92
congenital, etiology of, 84
management of, 95–99
CT and CTA in, 91
diagnosis of, 88–91, 92
endovascular approaches to, **83–100**
management of, 92–99
MRI and MRA in, 90–91
pathophysiology of, 84–86
signs and symptoms of, 87–88
- Aspirin, in venous thromboembolism and pulmonary embolism prophylaxis, 368

B

- Biomarkers, in need for molecular beacons, in clinical management of pancreatic cancer, **301–321**
- Breast cancer, local and regional control in, sentinel lymph node biopsy in, **101–116**

C

- Cancer immunology, background of, 341–344

- Cancer patient, antitumor immune reaction in, mechanisms inhibiting, 343
- Cancer vaccines, 347–349
- Cancers, immunotherapy of, nonspecific, 344–347
metastatic, active immunization approaches to, 347
stimulation of effector T cells in, 344–345
metastatic solid, immunotherapy for, **341–360**
- CAR-engineered T cells, in metastatic cancer, 354–355
- Carbohydrate antigen 125, in pancreatic cancer, 306–307
- Carbohydrate antigen CA19-9, in pancreatic cancer, 304–306
- Carcinoembryonic antigen, in pancreatic cancer, 306
- Carcinoid syndrome, 286
- Carcinoids, classification of, 285
diagnosis and staging of, 286–289
etiology of, 285–286
gastrointestinal, cytotoxic chemotherapy in, 295
diagnosis and treatment of, recent advances in, **285–300**
surveillance following, 296
medical treatment of, 293–296
metastatic disease in, surgical treatment of, 292–293
molecular targeted therapy in, 295–296
somatostatin analog therapy in, 293–294
surgical treatment of, 289–293
prognosis in, 296
- Celiotomy, in small bowel obstruction, 15–17
- Cholangiocarcinoma, and development of choledochal cysts, 218
- Choledochoceles, are they choledochal cysts?, **211–224**
cause of, 214

Note: Page numbers of article titles are in **boldface** type.

- Cholecdochoceles (*continued*)
 classification of, 211–213
 definition of, 213
 demographic and presenting symptoms of, 216
 diagnosis of, 216–217
 management of, 218–220
 outcome of, 220
 pathophysiology of, 215
- Choledochal cysts, are they cholecdochoceles?, **211–224**
 cause of, 214
 classification of, 211–213
 demographics and presenting symptoms of, 215–216
 development of, cholangiocarcinoma and, 218
 diagnosis of, 216–217
 endoscopic, percutaneous, and surgical management of, 218–220
 in ductal anatomic abnormalities, 217, 218
 pathophysiology of, 214
- Colon surgery, infection control in, bowel preparation and oral or parenteral antibiotics in, **131–140**
 mechanical bowel preparation in, 133–135, 136
 oral antibiotic use for, 135–137
 parenteral antibiotic administration in, 133
 surgical site infections following, oral antibiotics to prevent, **141–153**
 current literature on, 146–147
 current state of practice, 147
 future directions in, 149–150
 history of, 142–145
 propensity-matched analysis and, 149
 theory in, 141–142
 variation in complication rates and, 147–148
- Colorectal cancer, blood markers in, 33–35
 colonoscopy in, 32–33
 virtual, 37
 computed tomographic colonography in, 37–38
 endoscopy in, 31–33
 familial type X, 271–272
 hereditary nonpolyposis, colectomy in, 268, 269
 criteria defining, 266
 rectal cancer in, 269–271
 surgical management of, **265–274**
 screening for, **31–44**
 stool markers in, 35–37
 surveillance for, 267
 video capsule endoscopy in, 38–39
- Critical illness, insulin therapy and strict glucose control in, 188–190
- Crohn disease, small bowel obstruction in, 5–6
 management of, 21–22
-
- D**
- Dabigatran, 383–386
-
- E**
- Endovenous laser surgery, in varicose veins, 52–57
-
- G**
- Gastrointestinal carcinoids. See *Carcinoids, gastrointestinal.*
- Gemcitabine, in pancreatic cancer, 312–313
- Glucose control, insulin therapy and, in critical illness, 188–190
- Glucose elevations, in critically injured trauma patients, and outcome in, **187–196**
 controversies and future directions in, 191–194
- Gynecologic surgery, venous thromboembolism prophylaxis for, 373, 374, 377
-
- H**
- Health care, adjusting for race and poverty, 65–66
 affluence-poverty nexus and, 75–78
 and evolution of 30%, 63–65, 72–74
 Dartmouth Atlas and, 63, 68, 70, 72–75
 death as outcome and, 68
 geographic variation in, and affluence-poverty nexus in, **63–82**
 methodological pitfalls of, 65–70
 Medicare and, 66, 67, 68, 71
 “more is less” and, 64–65
 “more is more” and, 69–70
 quintiles model and, 70–72
- Health care delivery system, hospitals in, 178
 nursing shortage and, 181
 sustainable growth rate and, 181
- Health care policy, changes in, by federal law, consequences of, 179
 immigration laws and, 180–181
- Health care reform, impact of, on surgery, **177–185**

- Hematologic disease, mobilization of stem cells in, 121–123
- Heparin, low-molecular-weight, and pentasaccharide, in venous thromboembolism and pulmonary embolism prophylaxis, 364–366
unfractionated, in venous thromboembolism and pulmonary embolism prophylaxis, 363–364
- Hernia, small bowel obstruction in, 3–5, 21
- Hospitals, safety net, 178–184
- HuR, as biomarker in pancreatic cancer, 309–312, 313–314
- Hyperglycemia, risk of, and treatment of, among trauma patients, 190–191
stress, pathophysiology of, 187–188
- Hyperparathyroidism, causes of, 237–239
operative failures for, influence of surgical volume in, 237–248
reoperations in, 239, 240, 241–246
operative technique for, 245–246
preoperative assessment for, 242–245
surgery in, 239
surgical failure in, 239–241
symptoms of, 238
- Hypothermia, adverse effect in surgical patient, 250–255
airway heating in, 256–257
cardiac morbidity and, 251
coagulopathy and, 251
cutaneous warming in, 257–258
perioperative, pathophysiology of, 249–250
prevention of, 256
postoperative shivering in, 250
surgical site infections and, 251–255
temperature monitoring in, 255–256
warmed intravenous fluids in, 258–259
-
- I**
- Immune cells, activated, with antitumor activity, adoptive cell transfer of, 350–356
- Immunotherapy, for metastatic solid cancers, 341–360
- Infections, surgical site, following colon surgery, oral antibiotics to prevent. See *Colon surgery, surgical site infections following.*
- Insulin therapy, and glucose control, in critical illness, 188–190
-
- L**
- Laser surgery, endovenous, in varicose veins, complications of, 55
contraindications to, 52, 53
results of, 54–55
- Liver, regeneration of, hematopoietic stem cells in, 119–120
normal mechanisms of, 118
- Liver failure, acute, challenges presented by, 117–118
mobilization of stem cells in, beneficial effects in, 124–126
recovery due to stem cells in, 120–121
stem cells in, 117–130
- Lymph node, sentinel. See *Sentinel lymph node.*
- Lymph node biopsy, sentinel, in local and regional control of breast cancer, 101–116
- Lymphocytes, genetically modified autologous peripheral blood, adoptive cell transfer using, 351
tumor-infiltrating, adoptive cell transfer using, 350–351, 352
- Lynch syndrome, cancer risk in, 267
colon cancer in, 267–268
description of, 266–267
surgical indications and management in, 267–271
uterus and ovaries in, management in, 267–271, 271
-
- M**
- Melanoma, anatomic stage/prognostic groups for, 228
staging categories for, 227
survival curves from, 229
ulceration of, and underlying molecular mechanisms, 232–234
as negative prognostic factor, 225–226
as predictor of response to adjuvant interferon therapy, 228–232
as predictor of sentinel lymph node involvement, 226–228
Sunbelt Melanoma Trial and, 230, 231–232
what does this mean for prognosis?, 225–236
-
- N**
- Necrosectomy, pancreatic, 155–176
- Neurosurgery, venous thromboembolism prophylaxis for, 372–373

Normothermia, perioperative,
during major surgery, importance of,
249–263

O

Orthopedic surgery, venous
thromboembolism prophylaxis for,
368–370, 377

P

Pancreatectomy, major, limitations of,
current robotic platform and,
338–339

Pancreatic cancer, clinical management of,
need for molecular beacons for,
biomarkers and, **301–321**
novel markers of, 307–309

Pancreatic ductal adenocarcinoma, clinical
management of, biomarkers used for,
303, 304
 limitations and usefulness of,
 304–307
 genome-wide expression analyses of,
 need for work in, 314–315
 incidence of, 301
 outcomes in, 302–303
 treatment of, 301–302
 emerging molecular biomarkers of,
 309–314
 targeted strategy for, 315, 316

Pancreatic necrosectomy, **155–176**

Pancreatic necrosis, definition of, 156
diagnosis of, 160–162
endoluminal therapy in, 168–169
hybrid procedures in, 169–170
image-guided drainage procedures
in, 169
long-term outcomes of, 170
sterile and infected, pathophysiology
and prevention of, 156–160
surgery in, indications for, and timing
of, 162–163
 open pancreatic necroectomy,
 163–165
 videoscopic techniques for,
 165–168
treatment of, recommendations for,
171

Pancreatic resection, robot-assisted, major,
323–340
 emerging innovations in, 339
 minimally invasive,
 advantages of, 324
 outcomes following,
 compared, 337–338
 Pittsburgh experience with,
 334–337

Pancreaticoduodenectomy,
development of, historical landmarks
in, 323–324
laparoscopic techniques for, limitations
of, 324–325
robotic-assisted, instruments for, 327
minimally invasive, 325
patient position for, 327
port position for, 327
selection criteria for, 325–326
technique of, 326–334
 steps in, 327–334

Pancreatitis, acute, classification of, 156,
158–159

Parathyroidectomy, 239

Pentasaccharide, and low-molecular-weight
heparin, in venous thromboembolism
and pulmonary embolism prophylaxis,
364–366

Pulmonary embolism, and deep vein
thrombosis, in surgical patient,
prophylaxis for, **361–390**

R

Radiation enteritis, management of, 22

Radiofrequency ablation, in varicose veins,
46–51, 55–57

Radiofrequency procedures, complications of,
51–52

Residency training, general surgery, early,
275–276
 how to change, **275–284**
 in 1990s, 276–277
 recent, 277
 redesigning of, challenge of,
 277–278

Rivaroxaban, 380–383

S

Sclerotherapy, in varicose veins, 57–59

Sentinel lymph node, dissection of, and
axillary recurrence in sentinel node-
negative cancer, 108–110
 and axillary recurrence in
 sentinel node-positive cancer,
 110–112
 in axillary staging, 105–107
 patient selection for, 101–102
 success of, impact of patient and
 tumor characteristics on,
 105, 106

- technical aspects of, 102–105
 - histopathologic analysis of, 107–108
 - involvement in melanoma, ulceration of melanoma as sign of, 226–228
 - Small bowel obstruction, adhesive, 1–2
 - management of, 17–18
 - Crohn disease in, 5–6
 - management of, 21–22
 - current management of, **1–29**
 - algorithm for, 13, 14
 - by specific etiology, 17–22
 - nonoperative, 13–15
 - operative, 15–17
 - operative or nonoperative decision in, 10–13
 - diagnosis of, and workup in, 7–9
 - following intraperitoneal operations, management of, 19–20
 - from volvulus, 6
 - history and physical examination in, 8
 - imaging in, 9
 - in hernia, 3–5
 - management of, 21
 - intestinal ischemia in, from strangulation obstruction, 10
 - laboratory testing in, 8
 - malignant, 2–3
 - management of, 18–19
 - pathogenesis of, 1–7
 - pathophysiology of, 6–7
 - resuscitation in, 9–10
- Stem cells, hematopoietic, in regeneration of liver, 119–120
 - trafficking of, SDF1/CXCR4 axis, 123–124
- in acute liver failure, **117–130**
 - mobilization of, in hematologic disease, 121–123
 - in liver failure, beneficial effects of, 124–126
 - using different agents, 123
- Stromal tumor, gastrointestinal, clinical presentation of, 198
 - diagnosis and evaluation of, 198–199
 - prognostic factors in, 199–200
 - surgical management of, advances in, **197–209**
 - treatment of, 200
 - recurrent, treatment of, 203–206
- Surgeons, general, additional training for, 279
 - and procedures competent in, certifying examinations and, 279
 - milestones for promotion, 280, 281
 - minimal operative requirements for, 282
 - procedures done by, at time of ABS certification, 278
 - subspecialty training for, 282, 283
- Surgery, general, venous thromboembolism prophylaxis for, 373–376, 377
-
- T**
- T-cell receptor, 341
- T cells, CAR-engineered, in metastatic cancer, 354–355
 - effector, stimulation of, in metastatic cancer, 344–345
 - function of, negative regulators of, blockade of, 345–347
- TCR-engineered, in metastatic cancer, 353–354
- TCR-engineered T cells, in metastatic cancer, 351
- Thromboembolism, venous. See *Venous thromboembolism*.
- Thrombosis, deep vein, and pulmonary embolism, in surgical patient, prophylaxis for, **361–390**
 - modalities of, 363–368
- Transilluminated powered phlebectomy system, in varicose veins, 59
- Trauma patients, critically injured, glucose elevations in, and outcome in, **187–196**
 - controversies and future directions in, 191–194
-
- U**
- Urologic surgery, venous thromboembolism prophylaxis for, 370–371
-
- V**
- Varicose veins, CEAP classification of, 45–46
 - current management of, **45–62**
 - endovenous laser surgery in, 52–57
 - etiology of, 45
 - radiofrequency ablation of, 46–51
 - versus endovenous laser surgery in, 55–57
 - sclerotherapy in, 57–59
 - signs, symptoms, evaluation, and treatment of, 45–59

- Varicose (*continued*)
transilluminated powered phlebectomy
system in, 59
- Venous thromboembolism, cause of, in
surgical patient, 361–362
factor assessment before surgery, 362
prophylaxis for general surgery,
373–376, 377
prophylaxis for gynecologic surgery,
373, 374, 377
prophylaxis for neurosurgery, 372–373
- prophylaxis for orthopedic surgery,
368–370, 377
prophylaxis for urologic surgery,
370–371
risk factors for, 362, 363, 365

W

- Warfarin, in venous thromboembolism and
pulmonary embolism prophylaxis, 367