Subject Index

Page numbers in *italics* refer to illustrations or tables

A

acetaminophen 278
acinic cell carcinoma, salivary gland *38*, 213
activated charcoal dressings 285
active immunotherapy 187
adenocarcinoma, salivary gland *211*, 213
  chemotherapy 219–220
adenoid cystic carcinoma (ACC) *57*, 213
  case study *218*, 219, *219*
  chemotherapy 218
adenoma *see* pleomorphic adenoma
adjustment disorder 286
adoptive immunotherapy 187
advance care planning 289–290
  advance decisions to refuse treatment 290
  advance statements 290
  best-interest decisions 290
afatinib 87–88
age 82
airway obstruction 289
alveolar nerve *58*
amitriptyline 278
anterolateral thigh (ALT) flaps 129, *129*, 151, *155*
antibody-dependent cellular cytotoxicity (ADCC) 84–85
anticonvulsants 278
antifibrinolytics 285
anxiety 286
arterial disease 137
artificial saliva 257
arytenoid cartilage sclerosis 25, *28*
assessment 1, 81–82, 101–102, *101*
  advanced age 82
  depression 82
  disfigurement 81
  nutrition 82
  sociodemographic status 81
  see also specific types of cancer
atrophy 56
  postsurgical 25, *29*, *31*, *52*
auriculotemporal nerve 57, *61*
Australian Therapy Outcome Measures (AusTOMs) 255

B

basal cell carcinoma (BCC) 229
  primary lesion treatment 231–232, *231*
  see also skin cancer
best-interest decisions 290
biologically targeted therapy *see* targeted therapy
biopsy 4, *5*
  nodal recurrence 165
  recurrent skin cancer 234
  see also fine-needle aspiration (FNA)
bleeding 285
  massive hemorrhage 288–289
bleomycin 83–84
boron neutron capture therapy (BNCT) 88
brachytherapy 70
  nasopharyngeal carcinoma 181–184
    intracavitary brachytherapy by intubation 184, *185*
    iridium mold 182–184, *184*
    radioactive gold grain implantation 181–182, *183*
  nodal recurrence 167
  oropharyngeal cancer 156
  skin cancer 241
breast cancer *59*
buprenorphine 279

C

calcitonin levels *50*, 51
Cancer and Rehabilitation Workforce Project 259
cancer stem cells (CSCs) 8–9, *8*
Cancer Survivors' Partners' Unmet Needs measure, The 254
capacity, lack of 290
carboplatin 84
carcinoembryogenic antigen (CEA) 51
carotid artery
  body tumor *42–43*
  encasement 169–170, *170*
  resection 170
  rupture 70, 135–137
cell signaling pathways, platinum resistance mechanism 10
cephalic vein transfer 96
cerebellar atrophy *23*
cetuximab 85–87, *85*
  EXTREME study 85–86, *85*
charged particles 74
chemokines 13
  metastasis and 13, *13*
  salivary gland carcinoma
    adenocarcinoma 219–220
    adenoid cystic carcinoma 218–219, *218*, *219*
    mucoepidermoid carcinoma (MEC) 217–218
chemotherapy 83–84, *83*
  differentiated thyroid cancer (DTC) 205–206
  nasopharyngeal carcinoma 187
  nodal recurrence 165–166, 170
  postchemotherapy change 24, *24–25*, *26*

resistance 9–12
epidermal growth factor receptor (EGFR) inhibitor resistance 10–12
platinum resistance 9–10
taxane resistance 10
salivary gland carcinoma 217–220
skin cancer 239
malignant melanoma 238–239
skull base tumors 195
see also combined chemotherapy and re-irradiation (CRRT)
chest radiograph 38, *38*
chondrodermatitis *24*
chondroradionecrosis 19, *21*
cisplatin 9, 84, *84*, 187
clinical decision-making 82–83
case studies 106, 107
decision aids 107
decision-making theories 106–107
descriptive theories 106
normative theories 106–107
prescriptive approaches 107
patient involvement 105–107
prognostic factors 82–83
risk/benefit ratio 83
strategies 105
treatment aims 82
treatment options 107–110
clinical trials 110
re-irradiation with curative intent 108–110, *109*
supportive care 107–108
surgical debulking 108, *108*
surgical resection with curative intent 108
treatment selection factors 102–105, *102*
family and psychosocial support 104–105
interval following previous treatment 104
previous treatment and sequelae 102–104
religion and spirituality 105
tumor factors 102, *103*
see also patient selection
clinical profile 81–82
clinical trial issues 110
clonogenic cells 8
combined chemotherapy and re-irradiation (CRRT) 67
associated toxicity 69–70
acute 69–70
carotid rupture 70
chronic 70
neurological toxicities 70
beam arrangement 73, *73*, *74*
evidence for 68–70, *69*
prospective cooperative group trials 68–69
single-institution experiences 68
FHX platform 68, 69
new approaches 74–75
biologically targeted therapy 74–75
hypoxic tumor sensitization 75
nodal recurrence 166–167, 170
oropharyngeal carcinoma 153
outcomes 155–156
patient selection 70–72
prognostic factors 71
location of recurrence 71
pre-recurrence treatment 71, *71*
response to induction 72
radiation delivery advances 73–74
charged particles 74
intensity-modulated radiotherapy 73, *73*, *74*
stereotactic body radiotherapy 73–74
regimens 68
simulation and planning 72
treatment volume definition 72–73
see also chemotherapy; radiotherapy; re-irradiation therapy
communication issues 288
doctor's message about recurrence 268–270, *269*, *270*
expectations of patient 269
first emotions after 269
first thoughts after 269
patients' suggestions 271–272
reaction of doctor 269–270
reaction of partner 270
recurrence message versus first message 270
speech difficulties 258–259
composite laryngeal recurrence staging system (CLRSS) 114–115, *115*
computed tomography (CT) 2–4, 39, *42–43*
re-irradiation therapy planning 72
salivary gland carcinoma 215
thyroid carcinoma 202
see also imaging
coping styles 271, *271*
recurrent versus first cancer 271, *271*
cranial nerves 57
cricohyoidoepiglottopexy (CHEP) 119
cricohyoidopexy (CHP) 119
cyclophosphamide 84
cytotoxic chemotherapy *see* chemotherapy

D

debridement 285
debulking 108, *108*
decision-making *see* clinical decision-making
dental nerve *58*, *59*
depression 82, 104, 286–287
descriptive theories 106
differentiated thyroid cancer (DTC) 48, 199
assessment 201–203
diagnosis and treatment planning 202–203
surveillance 201–202
classification 199–200
epidemiology 199
management principles 203–206
case study 206, *206*
distant metastases 204
radioactive iodine 204–205
surgical treatment 203–204
systemic therapy 205–206
watchful waiting 203
prognostic factors 200–201, *200*, *201*
disfigurement 81, 287
DNA hypermethylation 10

DNA repair 9
docetaxel 10, 84, 187
doctor's message about recurrence *see* communication issues
doxorubicin 84
dressings 284–285
drooling 280
dry mouth 256–257, 279–280
dysgeusia 257
dysphagia 255–256, 281–382, *282*, *283*
  diagnosis 255–256
  management 256, 281–382, *282*, *283*
  risk factors 256

E

ECOG 5397 study 86
edema *17*, *18*, *27*, *34*
elderly patients 82
electrochemotherapy–electroporation 89
end of life care 81, 288–290
  advance care planning 289–290
  airway obstruction 289
  case study 291–292
  issues 89–90
  massive hemorrhage 288–289
  see also palliative care
endoscopy, nasopharyngeal carcinoma
  examination 176
  nasopharyngectomy 178–180
enteral tube feeding 282–283, *282*, *283*
epidermal growth factor receptor (EGFR) 10–11, 187
  expression 11
  mutations 11–12
  ontogenesis and 11, *11*
epidermal growth factor receptor (EGFR) inhibitors 84–88, *84*
  afatinib 87–88
  cetuximab 85–87, *85*
    EXTREME study 85–86, *85*
  geftinib 87, *87*
  mode of action 84–85
  panitumumab 86–87
    SPECTRUM study 86–87
  resistance 10–12
  zalutumumab 87
epinephrine 285
Epstein–Barr (EB) virus 175, 176
esophageal strictures *21*
ethmoid sinus adenocarcinoma *195*
examination 1
  nodal recurrence 164, 165
  under anesthetic (EUA) 4, 165
EXTREME study 85–86, *85*
exudate 284–285

F

facial disfigurement 81, 287
facial nerve 57
  anterograde identification 220, *220*
  invasion *56*, *59*
  retrograde identification 220
family issues 104–105, 287–288
fasciocutaneous flaps 25
fentanyl 279
FHX-based regimens 68, 69
  toxicity 70
fiberoptic laryngoscopy 202
fibrosis *31*, 95, *95*
fibula free flaps 151
fibular graft *37*
field cancerization 68
fine-needle aspiration (FNA) 4, *5*, 38–39, *41*
  differentiated thyroid cancer 202
  nasopharyngeal carcinoma 176
  nodal recurrence 165
fistula prevention, pharyngolarygectomy 130–131
floor of mouth tumor *73*
  squamous cell carcinoma *18*, *24*
fluoroscopy 38, *40*
5-fluorouracil 83–84, *84*
follow-up 250–251
free jejunal grafts 130, *130*
frontal nerve 57
functional outcomes
  oropharyngeal carcinoma surgery 153–154
  pharyngolaryngectomy 131
functional status 104
fungating wound 283, *284*

G

gastric transposition 130
gastro-omental free flap 130
gastrostomy tube 282–283
geftinib 87, *87*, 187
gemcitabine 187
geographic miss 67, 102
glossectomy *30*
glossolaryngectomy *103*
greater superficial petrosal nerve (GSPN) 57
Groupe d'Etude des Tumeurs de la Tete et du Cou (GETTEC) study 69
Groupe d'Oncologie Radiotherapie Tete et du Cou (GORTEC) study 69

H

hearing loss *22*
hematoma *27*
hemimandibulectomy *19*, *37*
hemorrhage 285
  massive 288–289
herald bleeds 135, 137
heuristic processing 106
history 1, 164
  previous treatment records 2, 164
hyperparathyroidism *49*
hyperthermia (HT) treatment 88
hypogeusia 257
hypopharyngeal carcinoma *46–47*, 127
  recurrence detection 127–128
  recurrence incidence 127
  recurrence management
    after primary surgery 128–129, *128*, *129*

after radiotherapy and chemoradiotherapy 128
case study 129–130
outcome 127
re-irradiation 131
salvage pharyngolaryngectomy 129–131, *129*, *130*
hypoxic tumor sensitization 75

I
imaging 2–4, 17
recurrence detection 38–47
computed tomography (CT) 39, *42–43*
differentiated thyroid cancer 47–48, *47–50*, 202–203
fluoroscopy 38, *40*
in-transit metastasis 57–63, *62*
lymph node extracapsular spread 51, *51–53*
magnetic resonance imaging (MRI) 44, *44–45*
nasopharyngeal carcinoma 176
nodal recurrence 164–165, *164*, *165*
perineural spread 55–57, *56–61*
plain radiography 38, *38–39*
positron emission tomography and computed tomography (PET-CT) 46, *46–47*
salivary gland tumors 215, *215*
single-photon emission computed tomography (SPECT) 51
skin cancer 234
skull base invasion *54–55*, 55
ultrasound 38–39, *41–42*
therapy related changes 17–37, *17*
postchemotherapy change 24, *24–25*, *26*
postsurgical change 24–25, *27–37*
radiation-induced changes 18–24, *18–23*, *25–26*, *31*, *34*
see also specific imaging modalities
immunotherapy, nasopharyngeal carcinoma 187
impairments *see* symptoms
infection, postoperative 136–137
Institut Gustave-Roussy 68, *69*
intensity-modulated radiotherapy (IMRT) 73, *73*, *74*
nasopharyngeal carcinoma 186, *186*
internal auditory meatus (IAM) 57
International Classification of Functioning, Disability and Health (ICF) 253
iridium mold brachytherapy 182–184, *184*
isosfamide 84

J
jejunal flap 130, *130*
jugular vein
invasion *37*, *52–53*
occlusion *36*

L
lacrimal gland 57, *61*
lacrimal nerve 57
laryngeal carcinoma *21*, *33*, *34*, *52–53*, 113
epidemiology 113–114
recurrence diagnosis 114
recurrence management principles 115–116
choice of treatment modalities 115–116
palliative treatment 115
salvage treatment 115
staging of recurrent cancer 114–115, *115*
surgical management of recurrence 116–121, *117*
case study 118–119, *118*
conservation surgery principles 116–119
indications and contraindications *117*
salvage total laryngectomy 120–121
transoral laser microsurgery 119–120
laryngeal nerve palsy *35*
laryngectomy *33*, *36*, 116
partial 96–97, 116
supracricoid (SCPL), with cricohyoidopexy (CHP) 119
supraglottic (SGL) 119
vertical (VPL) 117–118, *117*, *118*
reconstruction issues 96–97, *97*
salvage total laryngectomy 120–121
laryngopharyngectomy *33*
reconstruction issues 97, *97*
laryngoscopy 202
larynx
artificial 258
chondroradionecrosis 19, *21*
reconstruction issues 96–98, *97*, *98*, 121
case study 97, *97*
see also laryngeal carcinoma
laser therapy effects 25, *28*
lockjaw 257
lung metastases *34*, *38*, *54–55*, *88*
lymphadenopathy *42*, 51
carotid encasement *170*
see also nodal recurrence
lymph node
biopsy 4, *5*, *41*, *42*, *56*
extracapsular spread detection 51, *51–53*
metastases 4, 13, *13*, 51, *56*
nasopharyngeal carcinoma recurrence 176–177
recurrent squamous carcinoma 4, *5*
sentinel lymph node SPECT imaging *62*, 63
see also nodal recurrence
lymphoma, follicular *58*
lysyl oxidase (LOX) 12–13

M
magnetic resonance imaging (MRI) 2–4, *4*, 44, *44–45*
salivary gland carcinoma 215, *215*
thyroid carcinoma 202
see also imaging
malignant melanoma *62*
epidemiology 229
investigations 234–235
management of recurrence 237–238
case study 238, *238*
systemic treatment 238–239
primary lesion treatment 232
prognostic factors 230
recurrent melanoma 234
recurrence patterns 230
regional treatment 232
see also skin cancer
malodor management 285
mandible

hemimandibulectomy *19*, *37*
orthopantomogram 38, *39*
reconstruction 98
squamous cell carcinoma *39*, *44*
mandibular alveolus *136*
mandibular nerve 57
mandibulectomy 150–151
mandibulotomy 150–151
manubriumectomy *128*, 130
marital status 104
maxillary nerve 57
maxillary reconstruction 98–99
Meckel cave 57
mediastinal dissection 130
melanoma *see* malignant melanoma
meningioma *22*
Merkel cell carcinoma (MCC) 229
primary lesion treatment 232, *232*
regional treatment 233
see also skin cancer
metastasis 2, *3*, *52–53*
bone *3*
distant 2, *3*, *164*
from thyroid cancer 47–48, 204
hematogenous 12–13
in-transit metastasis 57–63, *62*
liver *3*
lymphatic 4, 13, *13*, 51, *56*, *103*
pleomorphic adenoma 221
pulmonary *34*, *38*, *54–55*, *88*
salivary gland carcinoma 217
subcutaneous *62*
methotrexate 83–84
metronidazole 285
mitogen-activated protein kinase (MAPK) pathway 205, *205*
Moh's surgery 239
molecularly targeted agents 74
monoclonal antibodies (MABs) 84–85, *84*, 87
case studies 86, 87
see also targeted therapy
mucoepidermoid carcinoma (MEC) 212–213
chemotherapy 217–218
mucositis *18*, 24, *26*, 256, 278, 281
multinucleate giant cells *41*
myocutaneous flaps 25, *52*, 96–98, *97–99*

N

nasal angiosarcoma *42*
nasal cavity carcinoma 138–139, *140*
nasocilliary nerve 57
nasogastric (NG) tube 282
nasopharyngeal carcinoma (NPC)
chemotherapy 187
clinical features 176
epidemiology 175
immunotherapy 187
investigations 176
management principles 176–177
infiltration of skin or deeper tissues 177
recurrence in nasopharynx 177
recurrence in neck lymph node 176–177
radiation techniques 181–186, *182*
brachytherapy 181–184, *182*, *183*, *184*, *185*
case study 182
complications 182, 184, 185–186
external radiotherapy 184–186, *185*, *186*
surgical techniques
approaches 177
case study 178, *179*
complications 178, 180
outcome 177, 181
resection 177
salvage surgery for the neck 178
salvage surgery for recurrence at the primary site 178–180
targeted therapy 187
nasopharyngectomy
endoscopic 178–180
with microvascular free flap reconstruction 180
robotic 180
via the maxillary swing approach *179*, 180
neck dissection *20*, *27*, *29–33*, *95*, 108, *108*
nasopharyngeal carcinoma 178
nodal recurrence 167–168
thyroid cancer 203–204, *203*
see also surgical treatment
neck resurfacing 99
needle biopsy *see* fine needle aspiration (FNA)
needs assessment *see* rehabilitation
Needs Assessment for Advanced Cancer Patients 254
neurofibroma *54–55*
neuropathic pain 278
nociceptive pain 278
nodal recurrence 163, 216
evaluation 163–165
examination 164, 165
history 164
imaging 164–165, *164*, *165*
needle or open biopsy 165
previous treatment records 164
incidence and distribution 163
management 165–167
patient selection 167
previously treated neck 166–167
prognostic factors 167
untreated neck 165–166
outcomes 170–171
radiation therapy 170
complications following re-irradiation 171–172
surgical treatment 167–170
carotid encasement 169–170, *170*
case studies 168–169, *168*
complications 171
incisions 169
type of neck dissection 167–168
see also lymph node
nonmelanoma skin cancer (NMSC) 229
see also skin cancer
normative theories 106–107
nucleotide excision repair pathway, platinum resistance
mechanism 9–10

nutrition 82

O
odor management 285
odynophagia 256
open biopsy 4
  nodal recurrence 165
ophthalmic nerve 57
ophthalmoplegia 55
opioids 278
oral cavity
  mucositis *18*, 24, *26*, 256, 278, 281
  reconstruction 98, *99*
  see also symptoms
oral cavity carcinoma 133
  posttreatment surveillance 133–134
  recurrence diagnosis 134
  recurrence management principles 134–135
    advanced-staged recurrent carcinoma 134
    early-stage recurrent tumors 134
    relapse after combined therapy 135
    relapse after surgery of radiation alone 134–135
  surgical techniques for recurrence 135–139
    case studies *136*, 137–138, *138*, 139, *140*
    indications 135
    limitations 135–139, *136*, *138*
    locoregional recurrent cancers *136*, 137
    postoperative complications 139
    quality of life and 141
    survival and locoregional control 139–141
oropharyngeal carcinoma *46–47*, *109*
  epidemiology 145
  investigations 146–147
    FDG-PET imaging controversies 146–147
    planned neck dissections 146
  options with treatment failure 147
  outcomes 153–157, *154*, *155*
    brachytherapy 156
    palliative chemotherapy and supportive care 156–157
    re-irradiation with chemotherapy 155–156
    salvage surgery 153–155, *154*, *155*, *156*
  patient selection issues
    performance status 149
    prior treatment 148–149
    recurrence-free interval 149, 150
    re-irradiation 148–150
    salvage surgery 147–148
    tumor bulk 149–150
  prognostic factors 145–146, *145*
  re-irradiation treatment 152–153
    concurrent or adjuvant treatments 153
    delineation of treatment targets 152–153
    dose and fractionation 152
  surgical treatment 150–152, *151*
    case study 154
    complications 154
    mandibulotomy and mandibulectomy 150–151
    minimally invasive techniques 147
    reconstruction and rehabilitation 151–152
    resection margins 150
    treatment algorithm *150*
oropharynx reconstruction 98, *99*
orthopantomogram 55
  mandible 38, *39*
osteoradionecrosis (ORN) 18–19, *19*, *20*, 258
otitis media *22*

P
paclitaxel 84
pain control 277–279
  administration route 278–279
    enteral 279
    syringe drivers 279
    transdermal 279
    transmucosal 279
  etiology of pain 277–278, *278*
  neuropathic pain 278
  nociceptive pain 278
  somatic pain 278
palliative care 81, 277
  complex wound management 283–285
    bleeding 285
    exudate 284–285
    malodor 285
    pruritus 285
  elderly patients 82
  laryngeal cancer recurrence 115
  oral problems 279–283
  oropharyngeal cancer 156–157
  palliative radiation 108
  see also end of life care; pain control; supportive care
panitumumab 86–87
parotidectomy *52*
parotid gland
  atrophy *29*
  carcinoma 2–4, *4*, *61*, 214
    acinic cell carcinoma *38*
    adenocarcinoma *211*
    squamous cell carcinoma *61*
    surgery 220, *220*
    see also salivary gland carcinoma (SGC)
parotitis 19, *24*
patient positioning, re-irradiation therapy 72
patient selection 101
  assessment 101–102, *101*
  combined chemotherapy and re-irradiation (CRRT) 70–72
  re-irradiation 148–158
    oropharyngeal cancer 148–150
    performance status and 149
    prior treatment importance 148–149
    recurrence-free interval and 149, 150
    tumor bulk and 149–150
  revision surgery 102, *103*
    oropharyngeal cancer 147–148
  see also clinical decision-making
pectoralis major pedicled flaps 151
percutaneous endoscopic gastrostomy (PEG) 282–283, *282*, *283*
performance status 82
perineural invasion 55
  detection 55–57, *56–61*

facial nerve *56*
PET-CT scanning 2, *2–3*
pharyngeal defect reconstruction 97–98, *97*, *98*
pharyngolaryngectomy 128, 129–131
fistula prevention measures 130–131
functional outcome 131
reconstruction options 129–130, *129*, *130*
photodynamic therapy (PDT) 89
platinum resistance 9–10
pleomorphic adenoma *58*, 221–222, *222*
adjuvant radiotherapy 221
case study 222, *222*
epidemiology 221
metastatic 221
surgical treatment 221
pneumoparotitis 17
positron emission tomography and computed tomography (PET-CT) 46, *46–47*, 51, *51*, 56, *61*
salivary gland carcinoma 215
thyroid cancer 202–203
see also imaging
postsurgical change 24–25, *27–37*
posttraumatic stress disorder (PTSD) 286
prognosis 245
individualized prognosis 249–250, *249*, *250*
unmet needs influence on outcomes 254–255
prognostic factors 82–83, 245–249, *246*, *247*, *248*
combined chemotherapy and re-irradiation *71*
location of recurrence 71
pre-recurrence treatment 71, *71*
response to induction 72
differentiated thyroid cancer 200–201, *200*, *201*
follow-up 250–251
nodal recurrence 167
oropharyngeal carcinoma 145–146, *145*
performance status 82
recurrent skull base tumors 191
skin cancer 229–230, 233–234, *233*
malignant melanoma 230, 234
time-dependent effects 246–249
see also prognosis
pruritus 285
psychosocial issues 265–266, 272–273, 286–288
anxiety 286
communication 288
coping styles 271, *271*
recurrent versus first cancer 271, *271*
current fears 271
current research 267–268, *267*, *268*
depression 82, 104, 286–287
disfigurement 287
doctor's message about recurrence 268–270, *269*, *270*
expectations of patient 269
first emotions after 269
first thoughts after 269
patients' suggestions 271–272
reaction of doctor 269–270
reaction of partner 270
recurrence message versus first message 270
family issues 287–288
fear of recurrence 267
reactions to recurrence 270–271, *270*
suicidal ideation 287
pterygoid muscle infiltration *33*
pulmonary metastases *34*, *38*, *54–55*, *88*

Q

quality of life outcomes
oral cavity carcinoma surgery 141
oropharyngeal carcinoma salvage surgery 153–154

R

radial forearm flaps 129, *129*, 151
radioactive iodine whole-body scan 202
radiography 38, *38–39*, 56
see also imaging
radiotherapy
brachytherapy 70
imaging of therapy related changes 18–24, *18–23*, *25–26*, *31*, *34*
incomplete coverage 67, 102
nasopharyngeal carcinoma 181–186, *182–186*
intensity modulated radiotherapy 186, *186*
stereotactic radiation 184–186, *185*
nodal recurrence 165–166, 170
palliative radiation 108
pleomorphic adenoma 221
resistance 8–9, *8*, 67
salivary gland carcinoma 216–217
metastatic disease 217
postoperative 216–217, *216*, *217*
re-irradiation 217
without surgery 217
skin cancer
primary lesion 231–232
recurrence management 240–241
skull base tumors 194–195, *194*
case study 194, *196*
thyroid cancer 204–205
treatment selection following recurrence 103
see also brachytherapy; combined chemotherapy and re-irradiation (CRRT); re-irradiation therapy (RRT)
reconstruction 95
hypopharynx 129–130, *129*, *130*
larynx 96–98
case study 97, *97*
circumferential pharyngeal defects 97–98, *97*, *98*
laryngectomy 97
partial laryngectomy 96–97
partial laryngopharyngectomy 97, *97*
total laryngectomy 121
maxilla 98–99
neck resurfacing 99
oral cavity 98, *99*
oropharynx 98, *99*, 151–152
skull base 99
surgical approach issues 95–96
previous surgery 96
prior radical radiotherapy or chemoradiation 95
vessel depleted neck management 96

rectus abdominis free flaps 151
recurrence 1, 7, 250–251
  reasons for following radiotherapy 67–68
    field cancerization 68
    radiation coverage 67
    radioresistance 8–9, *8*, 67
  see also imaging; *specific cancers*; treatment resistance
recurrent skull base tumors (RSBTs) *see* skull base
rehabilitation 253
  case studies 259–262
    after radiotherapy 261–262, *262*
    after surgery 259–261, *260*
  needs 253–255
    assessment approaches 253–254
    influence of unmet needs on outcomes 254–255
    scales and questionnaires 254
  see also supportive care; symptoms
re-irradiation therapy (RRT) 67
  beam arrangement 73, *73*, *74*
  with curative intent 108–110, *109*
  hypopharyngeal cancer 131
  nodal recurrence 166–167, 170
    complications 171–172
  oropharyngeal cancer 148–150, 152–153
    concurrent or adjuvant treatments 153
    delineation of treatment targets 152–153
    dose and fractionation 152
    outcomes 155–156
  patient selection issues 102, 148–150
    comorbidities 149
    performance status 149
    prior treatment importance 148–149
    recurrence-free interval 149, 150
    tumor bulk 149–150
  radiation delivery advances 73–74
    charged particles 74
    intensity-modulated radiotherapy 73, *73*, *74*
    stereotactic body radiotherapy 72–73
  salivary gland carcinoma 217
  simulation and planning 72
    dose calculation 72
  skin cancer 240–241
  treatment volume definition 72–73
  see also combined chemotherapy and re-irradiation (CRRT)
religion 105
retropharyngeal adenopathy 51
revision surgery *see* surgical treatment
risk/benefit ratio 83
RTOG 9610 cooperative group trial 68, *69*
RTOG 9611 cooperative group trial 69, *69*

S

saliva
  substitutes 257
  thick, sticky 257
salivary bypass tube 98, *129*, 130
salivary duct carcinoma (SDC) 220
salivary gland carcinoma (SGC) 211–213, *211*
  diagnosis 215
  epidemiology 211
  histology 212
  management 216–221
    chemotherapy 217–220
    radiotherapy 216–217, *216*, *217*
    surgery 216, 220–221, *220*
  prognosis 212
  recurrence prediction 213–214, *214*
  signs and symptoms 211–212
  see also parotid gland; submandibular gland
salivary stents 98, *98*
salvage surgery *see* surgical treatment
sclerosis *19*
  arytenoid cartilage 25, *28*
Servox communication aid 258, *258*
  case study 260–261
sialogogues 257
single-photon emission computed tomography (SPECT) 51
  nodal recurrence 170, *171*
  sentinel lymph node imaging *62*, 63
  see also imaging
skin cancer *230*
  epidemiology 229
  investigations 234–235
  management of recurrence 235–241
    brachytherapy 241
    case study 237, *237*
    in-field recurrence after radiotherapy 236, *236*
    local recurrence after surgery 235
    local re-irradiation 236
    other recurrence after surgery *235*, 236
    radiotherapy 240–241
    regional recurrence after surgery 235
    regional re-irradiation 236–237
    surgical techniques 239–240, *239*
    systemic treatment 239
  primary lesion treatment 230–232
    radiotherapy 231–232
    surgical treatment 231, *231*
  prognostic factors 229–230
    recurrent cancer 233–234, *233*
  recurrence patterns 230, *230*
  regional treatment 232–233, *233*
  see also malignant melanoma
skin tube flaps 97–98, *98*
skull base
  invasion *54–55*, 55
  reconstruction 99
  recurrent skull base tumors (RSBTs) 191
    assessment 191–192
    chemotherapy 195
    management principles 192–193
    outcomes 195–197
    prevalence 191
    prognostic factors 191
    radiotherapy techniques 194–195, *194*, *196*
    surgical techniques 193, *195*
social support 104–105
sociodemographic status 81
somatic pain 278
sorafenib 187

Mehanna et al. Head and Neck Cancer Recurrence. ISBN 9783131473912 © 2013 Georg Thieme Verlag/Thieme Publishers

SPECTRUM study 86–87
spirituality 105
split skin grafts 240
Spongostan 285
squamous cell carcinoma (SCC) *see specific locations*
stereotactic radiotherapy 72–73
  nasopharyngeal carcinoma 184–185, *185*
sternocleidomastoid atrophy *31*
stomatitis 280–281
submandibular gland carcinoma 214
  surgery 220–221
  see also salivary gland carcinoma (SGC)
sucralfate 285
suicidal ideation 287
supportive care 107–108, 277
  care pathways *259*
  care team 253
  oropharyngeal cancer 156–157
  see also palliative care; rehabilitation
Support Persons' Unmet Needs Survey, The 254
supraglottic tumors *41*, *51*
surgical hemostatic sponges 285
surgical treatment 108
  case studies 108
  with curative intent 108
  debulking 108, *108*
  hypopharyngeal carcinoma 129–131, *129*, *130*
  laryngeal carcinoma 116–121, 120–121
    horizontal partial laryngectomy 119
    indications and contraindications *117*
    salvage conservation laryngeal surgery 116–119
    salvage total laryngectomy 120–121
    transoral laser (TOL) microsurgery 119–120
    vertical partial laryngectomy 117–118, *117*, *118*
  nasopharyngeal carcinoma 177–181
    approaches 177
    case studies 178, *179*
    complications 178, 180
    outcome 177, 181
    resection 177
    salvage surgery for the neck 178
    salvage surgery for recurrence at the primary site 178–180
  nodal recurrence 165, 166–170
    carotid encasement 169–170, *170*
    case studies 168–169, *168*
    complications 171
    incisions 169
    type of neck dissection 167–168
  oropharyngeal cancer 147–148, 150–152, *151*
    case study 154
    complications 154
    mandibulotomy and mandibulectomy 150–151
    outcomes 153–155, *154*, *155*, *156*
    reconstruction and rehabilitation 151–152
    resection margins 150
  patient selection considerations 102, *103*, 147–148
  pleomorphic adenoma 221
  salivary gland carcinoma 216
    parotid gland 220, *220*
    submandibular and minor glands 220–221
  skin cancer
    local relapse 239–240, *239*
    primary lesion 231, *231*, 232, *232*
    regional relapse 240
  skull base tumors 193–194
    case study 193–194, *195*
  thyroid cancer 203–204, *203*
  see also postsurgical change; reconstruction; *specific surgical procedures*
surveillance
  differentiated thyroid cancer 201–202
  oral cavity carcinoma 133–134
swelling 17, 18, *18*
symptoms *254*, 255–259
  communication difficulties 258–259
  drooling 280
  dysgeusia 257
  dysphagia 255–256, 281–382, *282*, *283*
  mucositis *18*, 24, *26*, 256, 278, 281
  odynophagia 256
  osteoradionecrosis 258
  stomatitis 280–281
  thick, sticky saliva 257
  trismus 257
  xerostomia 256–257, 279–280
  see also pain control
syringe drivers 279

T

targeted therapy 74–75, 84–88
  case studies 86, 87
  nasopharyngeal carcinoma 187
  thyroid cancer 205–206, *205*
taxanes 10, 84, 187
  resistance 10
temporalis muscle pedicled flaps 151
TheraBite 257
thyroglobulin (Tg) 202
thyroid cancer *3*, *31*, *41*, *47*, 199
  imaging for recurrence detection 47–48, *47–50*, 51
  medullary (MTC) *50*, 51
  see also differentiated thyroid cancer
thyroid flip-flop phenomenon 48, *48*, *49*
TNFerade oncolytic virus 75
tongue resection *29*
tongue tumors *2*, *22*, *103*
  squamous cell carcinoma *17*, *19*, *20*, *29*, *33*, *37*, *40*, 138, *138*
tonsillar carcinoma *31*, *155*, *156*
  perineural spread 61
total pain 89
tracheoesophageal puncture (TEP) 96, 97, 121
tracheostomy 25, *33*, *36*
  infection and 136
transoral laser (TOL) microsurgery
  laryngeal cancer 116, 119–120
  oropharyngeal cancer 147
transoral robotic surgery (TORS), oropharyngeal cancer 147
trapezius muscle atrophy *52–53*
treatment aims 82
treatment resistance 7–12

chemotherapy 9–12
radiation therapy 8–9, *8*
trigeminal nerve 57
trismus 257
tyrosine kinase inhibitors (TKIs) 84, *84*

U
ultrasound 38–39, *41–42*
differentiated thyroid cancer 202
guided biopsy 4, *5*
University of Chicago 68, *69*
utility theory 106–107

V
vascular endothelial growth factor (VEGF) 74–75
vein loop 96
vessel depleted neck management 96
videofluoroscopy swallowing study (VFSS) 261–262
vidian nerve 57
vinblastine 84
vocal cord
laser polypectomy *28*
palsy *35*

W
wound management 283–285
exudate 284–285
fungating wounds 283, *284*
malodor 285
pain 285

X
xerostomia 256–257, 279–280
causes *280*
management 257, 280
prevention 280

Z
zalutumumab 87