Thyroid Carcinoma Treatment Regimens

Clinical Trials: The NCCN recommends cancer patient participation in clinical trials as the gold standard for treatment.

Cancer therapy selection, dosing, administration, and the management of related adverse events can be a complex process that should be handled by an experienced healthcare team. Clinicians must choose and verify treatment options based on the individual patient; drug dose modifications and supportive care interventions should be administered accordingly. The cancer treatment regimens below may include both U.S. Food and Drug Administration-approved and unapproved indications/regimens. These regimens are only provided to supplement the latest treatment strategies.

These Guidelines are a work in progress that may be refined as often as new significant data becomes available. The National Comprehensive Cancer Network Guidelines® are a consensus statement of its authors regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult any NCCN Guidelines® is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment. The NCCN makes no warranties of any kind whatsoever regarding their content, use, or application and disclaims any responsibility for their application or use in any way.

Note: All recommendations are category 2A unless otherwise indicated.

▶Systemic Therapy for Thyroid Carcinoma[1]

REGIMEN	DOSING
Papillary Carcinoma[a,b]	
Systemic Therapy For Locally Recurrent, Advanced, and/or Metastatic Disease Not Amenable to RAI Therapy	
Axitinib[2-4,c,d]	**Days 1-28:** Axitinib 5-10mg orally twice daily. Repeat cycle every 4 weeks.
Cabozantinib[6-9,c,d]	**Days 1-28:** Cabozantinib 60-80mg (dose escalated based on response) orally once daily. Repeat cycle every 4 weeks. **OR** **Days 1-28:** Cabozantinib 140mg orally once daily. Repeat cycle every 4 weeks.
Dabrafenib (*BRAF*-positive)[10-12c,d]	**Days 1-28:** Dabrafenib 150mg orally twice daily. Repeat cycle every 4 weeks.
Entrectinib[13,14c-e] (for patients with *NTRK* gene fusion-positive tumors)	**Days 1-28:** Entrectinib 600mg orally once daily. Repeat cycle every 4 weeks.
Everolimus[15-17,c,d]	**Days 1-28:** Everolimus 10mg orally once daily. Repeat cycle every 4 weeks.
Larotrectinib[18,19c-e] (for patients with *NTRK* gene fusion-positive tumors)	**Days 1-28:** Larotrectinib 100mg twice daily. Repeat cycle every 4 weeks.
Lenvatinib (preferred for progressive and/or symptomatic disease)[20-23,f]	**Days 1-28:** Lenvatinib 24mg orally once daily. Repeat cycle every 4 weeks.
Pazopanib[24,25,c,d]	**Days 1-28:** Pazopanib 800mg orally once daily. Repeat cycle every 4 weeks.
Pembrolizumab (for patients with tumor mutational burden [TMB]-high tumors with 10 mut/Mb or higher)[26-28]	**Day 1:** Pembrolizumab 200mg IV over 30 minutes. Repeat cycle every 3 week for up to 2 years. **OR** **Day 1:** Pembrolizumab 400mg IV over 30 minutes. Repeat cycle every 42 days for up to 2 years.
Selpercatinib (for *RET* fusion-positive tumors)[29-31]	**Days 1-28:** Selpercatinib 120mg (patients less than 50kg) orally twice daily. Repeat cycle every 4 weeks. **Days 1-28:** Selpercatinib 160mg (patients 50kg or higher) orally twice daily. Repeat cycle every 4 weeks.
Sorafenib (for progressive and/or symptomatic disease)[32-34,f]	**Days 1-28:** Sorafenib 400mg orally twice daily. Repeat cycle every 4 weeks.
Sunitinib[35-38,c,d]	**Days 1-28:** Sunitinib 50mg orally once daily. Repeat cycle every 6 weeks (4 weeks on- followed by 2 weeks off-treatment) **OR** **Days 1-28:** Sunitinib 37.5mg orally once daily. Repeat cycle every 4 weeks.
Vandetinib[39,40,c,d]	**Days 1-28:** Vandetinib 300mg orally once daily. Repeat cycle every 4 weeks.
Vemurafenib[41,42,c,d]	**Days 1-28:** Vemurafenib 960mg orally twice daily. Repeat cycle every 4 weeks.

continued

Thyroid Carcinoma Treatment Regimens

▶Systemic Therapy for Thyroid Carcinoma[1] (continued)

REGIMEN	DOSING
Follicular Carcinoma[b,g]	
Systemic Therapy For Treatment of Progressive and/or Symptomatic Locally Recurrent, Advanced, and/or Metastatic Disease Not Amenable to RAI Therapy	
Axitinib[2-5,c,d]	**Days 1-28:** Axitinib 5-10mg orally twice daily. Repeat cycle every 4 weeks.
Cabozantinib[6-9,c,d]	**Days 1-28:** Cabozantinib 60-80mg (dose escalated based on response) orally once daily. Repeat cycle every 4 weeks. **OR** **Days 1-28:** Cabozantinib 140mg orally once daily. Repeat cycle every 4 weeks.
Dabrafenib (*BRAF*-positive) [10-12,c,d]	**Days 1-28:** Dabrafenib 150mg orally twice daily. Repeat cycle every 4 weeks.
Entrectinib (for patients with *NTRK* gene fusion-positive tumors)[13-17c-e]	**Days 1-28**: Entrectinib 600mg orally once daily. Repeat cycle every 4 weeks.
Everolimus[15-17,c,d]	**Days 1-28:** Everolimus 10mg orally once daily. Repeat cycle every 4 weeks.
Larotrectinib (for patients with *NTRK* gene fusion-positive tumors)[18,19,c-e]	**Days 1-28:** Larotrectinib 100mg twice daily. Repeat cycle every 4 weeks.
Lenvatinib (preferred for progressive and/or symptomatic disease)[20-23,f]	**Days 1-28:** Lenvatinib 24mg once daily. Repeat cycle every 4 weeks.
Pazopanib[24,25,c,d]	**Days 1-28:** Pazopanib 800mg orally once daily. Repeat cycle every 4 weeks.
Pembrolizumab (for patients with tumor mutational burden [TMB]-high tumors with 10 mut/Mb or higher)[26-28]	**Day 1:** Pembrolizumab 200mg IV over 30 minutes. Repeat cycle every 3 week for up to 2 years. **OR** **Day 1:** Pembrolizumab 400mg IV over 30 minutes. Repeat cycle every 42 days for up to 2 years.
Selpercatinib (for *RET* fusion-positive tumors)[29-31]	**Days 1-28:** Selpercatinib 120mg (patients less than 50kg) orally twice daily. Repeat cycle every 4 weeks. **OR** **Days 1-28:** Selpercatinib 160mg (patients 50kg or higher) orally twice daily. Repeat cycle every 4 weeks.
Sorafenib (for progressive and/or symptomatic disease)[32-34,f]	**Days 1-28:** Sorafenib 400mg orally twice daily. Repeat cycle every 4 weeks.
Sunitinib[35-38,c,d]	**Days 1-28:** Sunitinib 50mg orally once daily. Repeat cycle every 6 weeks (4 weeks on- followed by 2 weeks off-treatment) **OR** **Days 1-28:** Sunitinib 37.5mg orally once daily. Repeat cycle every 4 weeks.
Vandetinib[39,40,c,d]	**Days 1-28:** Vandetinib 300mg orally once daily. Repeat cycle every 4 weeks.
Vemurafenib (*BRAF*-positive)[41,42,c,d]	**Days 1-28:** Vemurafenib 960mg orally twice daily. Repeat cycle every 4 weeks.
Hürthle Cell Carcinoma[b,h]	
Systemic Therapy For Treatment of Progressive and/or Symptomatic Locally Recurrent, Advanced, and/or Metastatic Disease Not Amenable to RAI Therapy	
Axitinib[2-5,c,d]	**Days 1-28:** Axitinib 5-10mg orally twice daily. Repeat cycle every 4 weeks.
Cabozantinib[6-9,c,d]	**Days 1-28:** Cabozantinib 60-80mg (dose escalated based on response) orally once daily. Repeat cycle every 4 weeks. **OR** **Days 1-28:** Cabozantinib 140mg orally once daily. Repeat cycle every 4 weeks.

continued

Thyroid Carcinoma Treatment Regimens

▶Systemic Therapy for Thyroid Carcinoma[1] (continued)

REGIMEN	DOSING
Hürthle Cell Carcinoma[b,h] (continued)	
Systemic Therapy For Treatment of Progressive and/or Symptomatic Locally Recurrent, Advanced, and/or Metastatic Disease Not Amenable to RAI Therapy (continued)	
Dabrafenib (*BRAF*-positive)[10-12,c,d]	**Days 1-28:** Dabrafenib 150mg orally twice daily. Repeat cycle every 4 weeks.
Entrectinib (for patients with *NTRK* gene fusion-positive tumors)[13,14,c-e]	**Days 1-28:** Dabrafenib 150mg orally once daily. Repeat cycle every 4 weeks.
Everolimus[15-17,c,d]	**Days 1-28:** Everolimus 10mg orally once daily. Repeat cycle every 4 weeks.
Larotrectinib (for patients with *NTRK* gene fusion-positive tumors)[18,19c-e]	**Days 1-28:** Larotrectinib 100mg twice daily. Repeat cycle every 4 weeks.
Lenvatinib (preferred for progressive and/or symptomatic disease)[20-23,f]	**Days 1-28:** Lenvatinib 24mg once daily. Repeat cycle every 4 weeks.
Pazopanib[24,25,c,d]	**Days 1-28:** Pazopanib 800mg orally once daily. Repeat cycle every 4 weeks.
Pembrolizumab (for patients with tumor mutational burden [TMB]-high tumors with 10 mut/Mb or higher)[26-28]	**Day 1:** Pembrolizumab 200mg IV over 30 minutes. Repeat cycle every 3 weeks for up to 2 years. **OR** **Day 1:** Pembrolizumab 400mg IV over 30 minutes. Repeat cycle every 42 days for up to 2 years.
Selpercatinib (for *RET* fusion-positive tumors)[29-31]	**Days 1-28:** Selpercatinib 120mg (patients less than 50kg) orally twice daily. Repeat cycle every 4 weeks. **Days 1-28:** Selpercatinib 160mg (patients 50kg or higher) orally twice daily. Repeat cycle every 4 weeks.
Sorafenib (for progressive and/or symptomatic disease)[32-34,f]	**Days 1-28:** Sorafenib 400mg orally twice daily. Repeat cycle every 4 weeks.
Sunitinib[35-38,c,d]	**Days 1-28:** Sunitinib 50mg orally once daily. Repeat cycle every 6 weeks (4 weeks on- followed by 2 weeks off-treatment) **OR** **Days 1-28:** Sunitinib 37.5mg orally once daily. Repeat cycle every 4 weeks.
Vandetinib[39,40,c,d]	**Days 1-28:** Vandetinib 300mg orally once daily. Repeat cycle every 4 weeks.
Vemurafenib (*BRAF*-positive)[41,42,c,d]	**Days 1-28:** Vemurafenib 960mg orally twice daily. Repeat cycle every 4 weeks.
Medullary Carcinoma[b]	
Systemic Therapy For Treatment of Locoregional Recurrent or Persistent Disease	
Preferred	
Cabozantinib (Category 1)[9,43,44,d,i]	**Days 1-28:** Cabozantinib 140mg orally once daily. Repeat cycle every 4 weeks.
Selpercatinib (for *RET* fusion-positive tumors)[29-31,d,i]	**Days 1-28:** Selpercatinib 120mg (patients less than 50kg) orally twice daily. Repeat cycle every 4 weeks. **Days 1-28:** Selpercatinib 160mg (patients 50kg or higher) orally twice daily. Repeat cycle every 4 weeks.
Vandetinib (Category 1)[40,45,d,i,j]	**Days 1-28:** Vandetinib 300mg orally once daily. Repeat cycle every 4 weeks.

continued

Thyroid Carcinoma Treatment Regimens

▶Systemic Therapy for Thyroid Carcinoma[1] (continued)

REGIMEN	DOSING
Medullary Carcinoma[b] (continued)	
Systemic Therapy for Treatment of Recurrent or Persistent Distant Metastases	
Asymptomatic Disease	
Preferred	
Cabozantinib (Category 1)[9,43,44,d,i]	**Days 1-28:** Cabozantinib 140mg orally once daily. Repeat cycle every 4 weeks.
Selpercatinib (for *RET* fusion-positive tumors)[29-31]	**Days 1-28:** Selpercatinib 120mg (patients less than 50kg) orally twice daily. Repeat cycle every 4 weeks. **Days 1-28:** Selpercatinib 160mg (patients 50kg or higher) orally twice daily. Repeat cycle every 4 weeks.
Vandetinib (Category 1)[40,45,i-k]	**Days 1-28:** Vandetinib 300mg orally once daily. Repeat cycle every 4 weeks.
Useful in Certain Circumstances	
Pembrolizumab (for patients with tumor mutational burden [TMB]-high tumors with 10 mut/Mb or higher)[26-28]	**Day 1:** Pembrolizumab 200mg IV over 30 minutes. Repeat cycle every 3 week for up to 2 years. **OR** **Day 1:** Pembrolizumab 400mg IV over 30 minutes. Repeat cycle every 42 days for up to 2 years.
Symptomatic Disease or Progression	
Preferred	
Cabozantinib (Category 1)[9,43,44,d,i]	**Days 1-28:** Cabozantinib 140mg orally once daily. Repeat cycle every 4 weeks.
Selpercatinib (for *RET* fusion-positive tumors)[29-31]	**Days 1-28:** Selpercatinib 120mg (patients less than 50kg) orally twice daily. Repeat cycle every 4 weeks. **Days 1-28:** Selpercatinib 160mg (patients 50kg or higher) orally twice daily. Repeat cycle every 4 weeks.
Vandetinib (Category 1)[40,45,i-k]	**Days 1-28:** Vandetinib 300mg orally once daily. Repeat cycle every 4 weeks.
Other Recommended Regimens	
Doxorubicin + Streptozocin Alternating With Fluorouracil + Dacarbazine[46,m]	**Day 1:** Doxorubicin 60mg/m^2 IV push **Days 1-5:** Streptomycin 500mg/m^2 IV push. Administer for one 4-week cycle (odd cycle) alternating with one 4-week cycle (even cycle) of: **Days 1-5:** Fluorouracil 400mg/m^2 IV push **Days 1-5:** Dacarbazine 200mg/m^2 IV over 30 minutes. Repeat alternating cycles until disease progression or unacceptable toxicity including reaching a lifetime cumulative anthracycline dose.
Fluorouracil + Dacarbazine Alternating With Fluorouracil + Streptozocin[47,m]	**Days 1-5:** Fluorouracil 400mg/m^2 IV push **Days 1-5:** Dacarbazine 200mg/m^2 IV over 30 minutes. Administer for one 3-week cycle (odd cycle) alternating with one 3-week cycle (even cycle) of: **Days 1-5:** Fluorouracil 400mg/m^2 IV push **Days 1-5:** Streptomycin 500mg/m^2 IV push. Repeat alternating cycles until disease progression or unacceptable toxicity including reaching a lifetime cumulative anthracycline dose.
Lenvatinib[23,48,l]	**Days 1-28:** Lenvatinib 24mg orally once daily. Repeat cycle every 4 weeks.
Pazopanib[24,25,l]	**Days 1-28:** Pazopanib 800mg orally once daily. Repeat cycle every 4 weeks.
Sorafenib[34,37,49,50,l]	**Days 1-28:** Sorafenib 400mg orally twice daily. Repeat cycle every 4 weeks.
Sunitinib[34-38,l]	**Days 1-28:** Sunitinib 50mg orally once daily. Repeat cycle every 6 weeks (4 weeks on- followed by 2 weeks off-treatment) **OR** **Days 1-28:** Sunitinib 37.5mg orally once daily. Repeat cycle every 4 weeks.

continued

Thyroid Carcinoma Treatment Regimens

▶Systemic Therapy for Thyroid Carcinoma[1] (continued)

REGIMEN	DOSING
Medullary Carcinoma[b] (continued)	
Symptomatic Disease or Progression (continued)	
Useful in Certain Circumstances	
Pembrolizumab (for patients with tumor mutational burden [TMB]-high tumors with 10 mut/Mb or higher)[26-28]	**Day 1:** Pembrolizumab 200mg IV over 30 minutes. Repeat cycle every 3 week for up to 2 years. **OR** **Day 1:** Pembrolizumab 400mg IV over 30 minutes. Repeat cycle every 42 days for up to 2 years.
Anaplastic Carcinoma	
Adjuvant/Radiosensitizing Chemotherapy Regimens	
Other Recommended Regimens	
Cisplatin[51,n]	**Days 1:** Cisplatin 30-40mg/m^2 IV over 60 minutes. Repeat cycle weekly for 6 weeks with concurrent radiation
Docetaxel + Doxorubicin[51]	**Day 1:** Doxorubicin 20mg/m^2 IV push **Day 1:** Docetaxel 20mg/m^2 IV over 60 minutes. Repeat cycle weekly for 6 weeks with concurrent radiation. **OR** **Day 1:** Doxorubicin 60mg/m^2 IV push **Day 1:** Docetaxel 60mg/m^2 IV over 60 minutes. Repeat cycle every 3-4 weeks for 6 weeks with concurrent radiation (with pegfilgrastim)
Doxorubicin[51]	**Days 1:** Doxorubicin 20mg/m^2 IV push. Repeat cycle weekly for 6 weeks with concurrent radiation. **OR** **Day 1:** Doxorubicin 60mg/m^2 IV push. Repeat cycle every 3 weeks for 6 weeks with concurrent radiation.
Paclitaxel[51]	**Days 1:** Paclitaxel 30-60mg/m^2 IV over 60 minutes. Repeat cycle weekly with concurrent radiation.
Paclitaxel + Carboplatin[51]	**Day 1:** Paclitaxel 50mg/m^2 IV over 1 hour, **followed by:** Day 1: Carboplatin AUC 2 IV over 30 minutes. Repeat cycle weekly for 6 weeks with concurrent radiation.
Systemic Therapy for Metastatic Disease	
Preferred	
Dabrafenib + Trametinib (*BRAF* V600E mutation positive)[52-54,o]	**Days 1-28:** Dabrafenib 150mg orally twice daily **Days 1-12:** Trametinib 2mg orally daily. Repeat cycle every 4 weeks.
Entrectinib (for patients with *NTRK* gene fusion-positive tumors)[13,14,c-e]	**Days 1-28:** Entrectinib 600mg orally once daily. Repeat cycle every 4 weeks
Larotrectinib (*NTRK* gene fusion positive)[18,19]	**Days 1-28:** Larotrectinib 100mg orally twice daily. Repeat cycle every 4 weeks.
Selpercatinib (for *RET* fusion-positive tumors)[29-31]	**Days 1-28:** Selpercatinib 120mg (patients less than 50kg) orally twice daily. Repeat cycle every 4 weeks. **Days 1-28:** Selpercatinib 160mg (patients 50kg or higher) orally twice daily. Repeat cycle every 4 weeks.
Other Recommended Regimens	
Docetaxel + Doxorubicin[51]	**Day 1:** Doxorubin 60mg/m^2 IV push **Day 1:** Docetaxel 60mg/m^2 IV over 60 minutes. Repeat cycle every 3-4 weeks until disease progression or unacceptable toxicity including reaching a lifetime cumulative anthracycline dose (with pegfilgrastim) **OR** **Day 1:** Doxorubicin 20mg/m^2 IV push **Day 1:** Docetaxel 20mg/m^2 IV over 60 minutes. Repeat cycle weekly for 6 weeks with concurrent radiation.

continued

Thyroid Carcinoma Treatment Regimens

▶Systemic Therapy for Thyroid Carcinoma[1] (continued)

Anaplastic Carcinoma (continued)	
Systemic Therapy for Metastatic Disease (continued)	
Other Recommended Regimens (continued)	
Doxorubicin[51,55]	**Day 1:** Doxorubicin 60-75mg/m^2 IV push Repeat cycle every 3 weeks until disease progression or unacceptable toxicity including reaching a lifetime cumulative anthracycline dose. **OR** **Day 1:** Doxorubicin 20mg/m^2 IV push. Repeat cycle weekly until disease progression or unacceptable toxicity including reaching a lifetime cumulative anthracycline dose
Paclitaxel[51,56]	**Day 1:** Paclitaxel 135-200mg/m^2 IV over 3 hours Repeat cycle every 3-4 weeks. **OR** **Day 1:** Paclitaxel 60-90mg/m^2 IV over 60 minutes. Repeat cycle weekly.
Paclitaxel + Carboplatin[51,57]	**Day 1:** Paclitaxel 135-175mg/m^2 IV over 3 hours, **followed by:** **Day 1:** Carboplatin AUC 5-6 IV over 30 minutes. Repeat cycle every 3-4 weeks. **OR** **Day 1:** Paclitaxel 60-100mg/m^2 IV, **followed by:** **Day 1:** Carboplatin AUC 2 IV over 30 minutes. Repeat cycle weekly.
Useful in Certain Circumstances	
Levantinib[23,58] **(if not tolerating or no response to recommended agents in patients without curative option)**	**Days 1-28:** Lenvatinib 24mg orally once daily. Repeat cycle every 4 weeks.
Pembrolizumab (for patients with tumor mutational burden [TMB]-high tumors with 10 mut/Mb or higher)[26-28]	**Day 1:** Pembrolizumab 200mg IV over 30 minutes. Repeat cycle every 3 week for up to 2 years. **OR** **Day 1:** Pembrolizumab 400mg IV over 30 minutes. Repeat cycle every 42 days for up to 2 years.

[a] Primary treatment following surgery may involve consideration of levothyroxine therapy to keep thyroid stimulating hormone (TSH) low or normal. Consideration of post-thyroidectomy radioactive iodine (RAI) ablation and/or levothyroxine are recommended for some patients, and levothyroxine or RAI ablation are options for some patients with recurrent disease.

[b] Cytotoxic chemotherapy has been shown to have minimal efficacy, although most studies were small and underpowered.

[c] Commercially available small-molecule kinase inhibitors (such as axitinib, everolimus, pazopanib, sunitinib, vandetanib, vemurafenib [BRAF positive], dabrafenib [BRAF positive], or cabozantinib [all Category 2A]) can be considered if clinical trials are not available or appropriate.

[d] Kinase inhibitor therapy may not be appropriate for patients with stable or slowly progressive indolent disease.

[e] Larotrectinib and entrectinib are FDA-approved for patients with *NTRK* gene fusion-positive advanced solid tumors.

[f] The decision of whether to use lenvatinib (preferred) or sorafenib should be individualized for each patient based on likelihood of response and comorbidities.

[g] Primary treatment following surgery may involve consideration of levothyroxine therapy to keep TSH low or normal. Consideration of post-thyroidectomy RAI ablation is recommended for some patients, and levothyroxine or RAI ablation are options for some patients with recurrent disease.

[h] Primary treatment following surgery may involve consideration of levothyroxine therapy to keep TSH low or normal. Consideration of post-thyroidectomy radioactive iodine (RAI) ablation and/or levothyroxine are recommended for some patients, including those with known or suspected distant metastatic disease. Levothyroxine or RAI ablation are options for some patients with recurrent disease.

[i] Increasing tumor markers, in the absence of structural disease progression, are not an indication for treatment with systemic therapy.

[j] Only health care professionals and pharmacies certified through the vandetinib Risk Evaluation and Mitigation Strategy (REMS) program, a restricted distribution program, will be able to prescribe and dispense the drug.

[k] Treatment with systemic therapy is not recommended for increasing calcitonin/CEA alone.

[l] While not FDA approved for treatment of medullary thyroid cancer, other commercially available small-molecule kinase inhibitors (such as sorafenib, sunitinib, lenvatinib, or pazopanib) can be considered if clinical trials, vandetinib or cabozantinib are not available or appropriate, or if the patient progresses on preferred systemic therapy options.

[m] Doxorubicin/streptozocin alternating with flurorouracil/dacarbazine or fluorouracil/decarbazine alternating with fluorouracil/streptozocin.

[n] Hydration is required with supplemental electrolytes pre- and post-administration of Cisplatin.

[o] Consider dabrafenib/trametinib if *BRAF V600E* mutation-positive (Subbiah V, et al. *J Clin Oncol*. 2018;36:7-13); larotrectinib or entrectinib if *NTRK* gene fusion-positive (Drilon A, et al. *N Engl J Med*. 2018;378:731-738; Doebele RC, et al. *Lancet Oncol*. 2020;21:271-282); selpetcatinib if *RET* gene fusion-positive (Wirth L, et al. Presented at the Annual Meeting of the European Society for Medical Oncology [ESMO] in Barcelona, Spain, September 27-October 1, 2019; Oral presentation) or pembrolizumab for TMB-H (Marabelle A, et al. Presented at the Annual Meeting of ESMO in Barcelona, Spain, September 30, 2019).

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Thyroid Carcinoma Treatment Regimens

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(Revised 12/2020; NCCN Thyroid Carcinoma Guidelines v2.2020)