

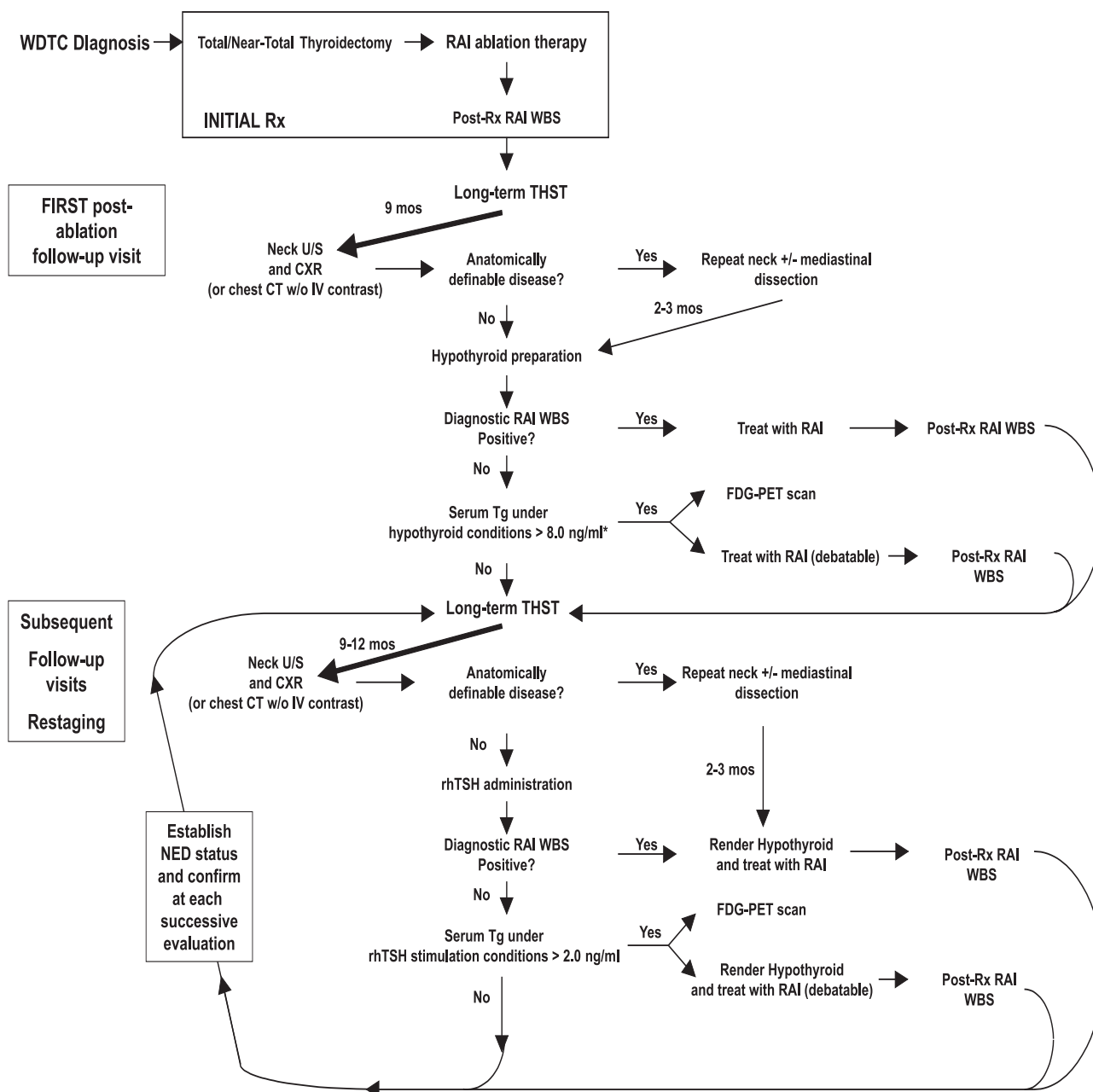


Figure 1. Algorithm for the follow-up of pediatric patients with well-differentiated thyroid carcinoma (WDTC) after total/near-total thyroidectomy and initial ^{131}I remnant ablation. In the proposed scheme, special emphasis is placed on the detection and eradication – whenever feasible – of persistent/recurrent metastatic disease in all patients who do not achieve no evidence of disease (NED) status. Different cutoff serum Tg values are used as corroborating evidence of residual/recurrent disease, depending on how TSH stimulation is achieved (thyroid hormone withdrawal vs. recombinant human thyrotropin [rhTSH] administration). For more details, refer to the text. Of note, RAI treatment for thyroid remnants can also be administered under stimulation with rhTSH. This is still considered an “off-label” use of rhTSH and should preferably be limited to tertiary center specialists with experience in the treatment of TC. Abbreviations: CT: computed tomography, CXR: chest X-ray, FDG-PET: ^{18}F -fluoro-deoxyglucose positron emission tomography, IV: intravenous, RAI: radioiodine (^{131}I), Rx: therapy, TH: thyroid hormone, THST: thyroid hormone suppressive therapy, U/S: ultrasonography, WBS: whole body scan, w/o: without.

*: The serum Tg cutoff value of 8.0 ng/ml – when measured under hypothyroid conditions, as a surrogate indicator of the presence of persistent/recurrent disease after adequate primary therapy – may be inordinately high. In many cases, we proceed with extensive diagnostic imaging evaluation in patients with Tg levels in the range of 2.0–8.0 ng/ml. When newer studies on this subject become available, it is highly likely that this cutoff Tg level will decrease significantly (in the range of 0.5–2.0 ng/ml).