

Supplementary table 1 Side-effects of anti-thyroid drug treatment.

Minor side effects

Major side effects

Cutaneous reaction: - pruritic rash - urticaria	Agranulocytosis (0.3-0.5%)
Gastritis	Severe leukopenia (0.001%)
Nausea and vomiting	Allergic reaction (<0.001%)
Hair loss	Hepatic necrosis (<0.05%) with PTU
Fever	
Sore throat	
Vasculitis	
Arthritis/arthralgia	
Myalgia	
Mild leukopenia	
High creatine kinase levels	
Hepatitis with mild elevated transaminases	

Based on van Lieshout et al.[40]

Supplementary table 2. Preparatory measures for ^{131}I treatment in children.

Action	Timing
Discuss option of ^{131}I treatment with child and legal guardians.	Whenever clinically appropriate.
Consultation with nuclear medicine physician for information on ^{131}I treatment, radiation protection measures.	Any time between decision on, and administration of treatment, as locally appropriate.
Thyroid ultrasound to determine thyroid volume and exclude suspicious nodules. Perform further diagnostics in case of suspicious nodules before proceeding with ^{131}I treatment.	Two to four weeks prior to planned ^{131}I treatment date.
Thyroid scintigraphy with $^{99\text{m}}\text{Tc}$ -pertechnetate or, ^{123}I or ^{131}I to ascertain sufficient and homogeneous uptake.	Before ^{131}I treatment; cancel treatment in case of contraindications for ^{131}I treatment, such as cold nodules or near-absent uptake. Can be performed as purely diagnostic procedure using $^{99\text{m}}\text{Tc}$ -pertechnetate. In case of pre-treatment dosimetry, thyroid scintigraphy and dosimetry can also performed as a single procedure using either ^{123}I or ^{131}I (see below).
Stop ATD and LT4	Three to seven days prior to planned ^{131}I treatment date or, if performed, three to seven days prior to planned dosimetry start date.
Dosimetry with ^{123}I or ^{131}I (when advised).	Perform in accordance to EANM standard operating procedures; less than one week should elapse between the end of dosimetry and treatment.
Laboratory testing: thyroid function and - when appropriate - pregnancy testing.	Day before or day of treatment. Discuss the very small risk of thyroid crisis and what to do if this is suspected.
^{131}I treatment should be avoided in active GO. Prophylactic corticosteroid treatment in a dose appropriate for stage and disease activity in case of inactive GO (see EUGOGO consensus).	Day of treatment, before ingestion of ^{131}I .

Abbreviations: ATD, anti-thyroid drug; EANM, European Association of Nuclear Medicine; EUGOGO, European Group on Graves' Orbitopathy; GO, Graves' orbitopathy; LT4, levothyroxine.