

Inclusion criteria	Exclusion criteria
Being diagnosed with non-medullary thyroid carcinoma.	Creatinine clearance <50 ml/min and/or active kidney disease.
Being aged 18 years or older.	Severe electrolyte disorders.
Having undergone total thyroidectomy and at least 1 treatment with [131]NaI.	Cardiac arrhythmias.
The presence of locally advanced or metastatic disease, radiologically proven. A minimum of 1 target lesion (minimum of 1.0cm for soft tissue and 1.5cm for lymph nodes) must be present.	Concomitant drugs that interfere with digoxin metabolism such as P-glycoprotein inducers or inhibitors.
RAI refractory disease: at least 1 lesion (target lesion) without therapeutically relevant uptake at previous post-therapeutic [131]NaI-scintigraphy and/or negative diagnostic [123I]NaI-scintigraphy.	Having undergone a CT-scan or other procedure with iodine contrast agent within the last three months.
Target lesion must not be eligible for local treatments (surgery, radiotherapy, radiofrequency ablation, etc.). In case of multiple lesion, local treatment is allowed, but these lesions are not considered target lesions.	Prior therapy with [131I]NaI <6 months prior to initiation of therapy of the current study.
Hematological laboratory values should be at least: <ul style="list-style-type: none"> <li>- Absolute neutrophil count <math>\geq 1.5 \times 10^9/L</math></li> <li>- Hemoglobin <math>\geq 5.6 \text{ mmol/L}</math></li> <li>- Thrombocytes <math>\geq 100 \times 10^9/L</math></li> </ul>	External beam radiation therapy <4 weeks prior to initiation of therapy of the current study.
	Chemotherapy or targeted therapy is not allowed <4 weeks prior to the initiation of the current study.
	Eastern Cooperative Oncology Group performance status >2
	Use of other investigational drugs within 4 weeks prior to the initiation of therapy of the current study.
	A known immediate or delayed hypersensitivity reaction or idiosyncrasy to digoxin or drugs chemically related to digoxin.
	Pregnancy, lactating or breast-feeding.
	Uncontrolled intercurrent illness including, but not limited to, ongoing or active infection or psychiatric illness that would limit compliance with study requirements.
	Unwillingness or inability to comply with study and follow-up procedures.
	Other active malignancies. Malignancies that have been in complete remission for over 2 years are no considered active.
	Rapidly progressive disease in which urgent start with systemic therapy is required.

Table S1: Full list of inclusion and exclusion criteria.