



West Yorkshire & Harrogate Cancer Alliance

Post-Surgical Treatment of Differentiated Thyroid Cancer Pathway

(including management of recurrent neck lump, timing of radioiodine, rTSH, post op T4 dose, stimulated Tg, 9 to 12 month risk stratification & follow up, radiotherapy & biological therapy)

Updated May 2017

Version 2.0

i Document Control

Title	Post-Surgical Treatment of Differentiated Thyroid Cancer Pathway
Author(s)	Dr Georgina Gerrard & former YCN Thyroid NSSG
Owner	West Yorkshire & Harrogate Cancer Alliance

Version Control		
Version/ Draft	Date	Revision summary
1.0	Feb 2013	Final First Version
1.1	March 2015	Updated
2.0	May 2017	Review and Update

Contributors to current version		
Contributor	Author/Editor	Section/Contribution
Dr Georgina Gerrard	YCN Thyroid NSSG	General
Justin Murphy		Review and Update

ii Information Reader Box

Title	Post-Surgical Treatment of Differentiated Thyroid Cancer Pathway
Author(s)	Dr Georgina Gerrard & former YCN Thyroid NSSG
Review date	May 2017
Sign off date	<p>May 2017 - Signed off by the West Yorkshire Thyroid Cancer Group with representatives from:</p> <p>Airedale NHS Foundation Trust Bradford Teaching Hospitals NHS Foundation Trust Calderdale & Huddersfield NHS Foundation Trust Harrogate and District NHS Foundation Trust Leeds Teaching Hospitals NHS Trust Mid Yorkshire Hospitals NHS Trust York Teaching Hospitals NHS Foundation Trust</p>
Next Review date	May 2020 (or sooner if new guidance becomes available).
Proposed Target Audience for Consultation / Final Statement	<p>WY&H CA Thyroid/Head & Neck MDT Teams WY&H CA Lead Nurses WY&H Cancer Managers WY&H Lead Cancer Commissioners</p>
Proposed Circulation List for Final Statement	All WY&H Cancer Alliance guidelines will be made available electronically on the website. No hard copies will be supplied.
Contact details	<p>West Yorkshire & Harrogate Cancer Alliance NHS Wakefield CCG White Rose House West Parade Wakefield WF1 1LT</p>

iii Table of Contents

I	DOCUMENT CONTROL	2
II	INFORMATION READER BOX	3
III	TABLE OF CONTENTS	4
1	RECOMMENDATIONS	5
1.1	RECURRENT NECK LUMP:.....	5
1.2	RADIOIODINE :.....	5
1.3	RISK STRATIFICATION AND FOLLOW UP:	6
1.4	EXTERNAL BEAM RADIOTHERAPY:.....	6
1.5	BIOLOGICAL AGENTS:	6
1.6	CHEMOTHERAPY:	7
2	REFERENCES:	7

1.1 Recurrent neck lump:

If a patient develops a **recurrent neck lump**, they should be referred back to their surgeon for investigations and/or surgical treatment. However, if they have symptoms and signs of radioiodine induced **sialadenitis** to contact the thyroid nurse specialist or oncologist.

1.2 Radioiodine :

Indications for radioiodine are given in another WY&H CA document. Patients may be eligible for the ION trial.

Radioiodine is usually given **at least four weeks after thyroidectomy** to allow time for the TSH to rise. However, if recombinant TSH injections are given then in theory radioiodine could be administered earlier than this but there needs to be time for the surgical scar to heal & for patients to regain independence for 'isolation'. The path report and extent of surgery may not be known (ie if a neck dissection is planned) at the time of booking the radioiodine and it takes longer to recover from a lateral neck dissection.

The majority of patients should have **recombinant TSH (rTSH)** injections instead of thyroid hormone withdrawal to raise the TSH level prior to radioiodine. If rTSH is to be used, then, after the thyroidectomy, the surgeon prescribes **Thyroxine** based on body weight, **2.0 microg per Kg or 1.6 microg per Kg** in the elderly or obese. Thyroxine is continued during admission for radioiodine when rTSH is used.

If thyroid hormone withdrawal is to be used (eg for patients with distant metastasis) in preparation for the radioiodine then the surgeon prescribes **T3 20 mcgs tds (20 mcgs bd for elderly patients)** after the thyroidectomy and the Nuclear Medicine department instructs the patient when to stop the T3 tablets which is usually 14 days prior to admission for radioiodine. If thyroxine was given post-op then the oncologist can switch to T3 in clinic if necessary.

Low dose radioiodine scans (tracer studies) are not usually performed prior to the first radioactive iodine admission partly because of stunning.

CT scans with contrast should be avoided prior to radioiodine because the contrast contains iodine. **Staging scans** (other than a neck US scan) are not recommended except **for high risk patients** (see local pre op scan guidance). These patients should have pre op non- contrast CT of the chest & a neck scan. If a high risk patient has not had a neck and chest scan performed pre op, then the oncologist will consider requesting scans at least 8 weeks after the radioiodine to allow time for the post op change to settle & radioactivity levels to fall. A bone scan should be done if the patient has bone pain, abnormal bone biochemistry or other concerning features.

Post treatment radioiodine imaging (neck and whole body images) are performed on all patients prior to discharge from the radioiodine rooms. If there are worrying features on

the post ablation / treatment scan then a SPECT- CT is performed prior to discharge from the Bexley Wing. A high TSH (thyroid stimulating hormone) causes the Tg to rise & this Tg is called a **stimulated thyroglobulin (sTg)**. TSH & sTg are measured during admission for radioiodine. (sTg is more sensitive than unstim Tg).

Further admissions for radioiodine are usually given for patients with metastasis usually about 6 months later.

1.3 Risk stratification and follow up:

Most patients have a routine **9 to 12 month follow up whole body low dose radioiodine scan** in the Bexley Wing as an outpatient. Prior to the scan they are usually given rTSH injections rather than thyroid hormone withdrawal. A **stimulated thyroglobulin** is performed at the time of the scan. If this sTg and the scan are satisfactory, the oncologist asks the surgeon to request a **neck US**. If that shows no evidence of disease, the **target TSH is the lower half of the normal range** (prior to the 9 to 12 month tests the target TSH is < 0.1). These low risk patients are seen infrequently in clinic and have a high probability of cure. If the sTg is raised or the follow up scans are of concern, follow up is initially with the oncologist as these patients are classified as being of higher risk of recurrence.

Follow up is also with an endocrinologist or via a joint surgical – endocrinological clinic. The endocrinologist advises on the management of hypocalcaemia, fine tunes the dose of Thyroxine and manages osteoporosis if present. Low risk patients only need annual Tg tests.

If the Tg rises or fails to fall after treatment, scans are requested as per the 2014 BTA guidelines and the Leeds protocol for a raised Tg.

1.4 External beam radiotherapy:

This should be considered for patients with:

- a. Residual or recurrent locoregional disease in whom further surgery or radioiodine is ineffective or impracticable.
- b. Sites of a distant metastasis (principally bone) when surgery or radioiodine is ineffective or impracticable. For solitary or limited number of boney mets that are not cured by radioiodine, radiotherapy with or without resection should be considered in selected cases

1.5 Biological Agents:

These agents are currently available via the CDF or in the trial setting. They could be

offered to patients with a good performance status and symptomatic progressive disease which is unresectable and resistant to both radioiodine and radiotherapy.

1.6 Chemotherapy:

Thyroid cancer responds poorly to chemotherapy. A biological agent should be considered prior to chemotherapy.

2 References:

American Thyroid Association guidelines 2009
British Thyroid Association guidelines 2007
European Thyroid Association guidelines 2006