# Low dose Radioactive Iodine Ablation (1.1GBq) for differentiated thyroid cancer – Mount Vernon Cancer Center experience (MVCC)

**Descriptor:**

This audit was conducted to assess implementation of low dose I131 in MVCC in patients with low risk DTC as well as overall efficacy of ablation with 1.1 GBq and interval between surgery and I131 ablation.

**Background:**

DTC (differentiated thyroid cancer) is managed by surgery followed by radio-active iodine ablation (RAI). The standard ablative dose in the UK has been 3.7GBq [1]. In May 2012, the HiLo trial reported ablation equivalence with standard (3.7GBq) and low (1.1GBq) dose I-131 [2].

## The Cycle

**The standard:**

• Ablation success rate >85% (based on the results of the HiLo trial [1])

• Median interval between thyroidectomy and 131-I ablation = 90 days

**Target:**

The aim was to assess the ablation success rate within the network compared to the HiLo trial results (>85%) [2] as well as the median interval between thyroidectomy and 131-I ablation = 90 days.

## Assess local practice

**Indicators:**

• Successful ablation was defined as a stimulated thyroglobulin of <1ng/ml and a negative ultrasound scan of the neck at 6 months, reviewed in the Thyroid Network MDM

• Time interval (in days) between surgery and RAI was calculated based on thyroidectomy date and the date of RAI administration (obtained from patient notes)

**Data items to be collected:**

• Notes from patients who had received RAI in 2011 and 2012 at MVCC were reviewed and audited

• The surgical and ablation dates were noted along with the RAI dose

• Thyroglobulin levels and scan results were reviewed to determine ablation success rates

**Suggested number:**

~70 patients (number of patients receiving RAI ablation annually at MVCC)

**Suggestions for change if target not met:**

Suggested changes to improve on RAI waiting times:

• Consistent low-dose RAI use in all low/intermediate risk patients (revision of local guidelines)

• Quicker referrals from Surgery to Oncology for ablation

• Open ION study

**References:**

1. Guidelines for management of thyroid cancer. Second edition. British Thyroid Association. 2007
2. Mallick et al. Ablation with low-dose radioiodine and thyrotropin alfa in thyroid cancer. NEJM 2012 May 3;366(18):1674-8

**Editor's comments:**

A simple audit measuring local ablation rates with low dose I-131 compared to standards set in a prospective trial for differentiated thyroid cancer.

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