

The invention relates to the medicine, in particular to the oncology and the nuclear medicine. The invention relates to the assessment of the number of radioiodine therapy courses required for the total ablation of the thyroid remnants and the metastatic lesions in the lymph nodes and the lungs in the patients with differentiated thyroid cancer. The number of the courses is assessed by the formula:

$$n = (0,68 + \exp[2,4 - 1,29 \cdot A_n^{(1)} - 0,69 A_n^{(2)} - 1,35 \cdot \delta_n]) \cdot n_{av},$$

$$A_n^{(1)} = A^{(1)} / A_{av}^{(1)};$$

$$A_n^{(2)} = A^{(2)} / A_{av}^{(2)};$$

$$\delta_n = \delta / \delta_{av};$$

wherein n – number of courses required for the total ablation of the thyroid remnants;

$A_n^{(1)}$ ,  $A_n^{(2)}$ ,  $\delta_n$ ;  $n_n$  – constants taking on the following values:

$A_{av}^{(1)}$  - 4382 MBq;

$A_{av}^{(2)}$  - 4272 MBq;

$\delta_{av}$  - 6 months;

$n_{av}$  - 4;

$A^{(1)}$  -  $I^{131}$  activity in the first course of the treatment;

$A^{(2)}$  -  $I^{131}$  activity in the second course of the treatment;

$\delta$  - interval between the first and the second courses of the treatment.