Purpose: Following surgery, papillary and follicular thyroid cancers are usually treated with oral administration of NaI-131. In order to estimate subsequent staff, family, and public exposures, it is important to measure both exposure rates as well as the time of clearance of residual activity from these individuals. There is the additional possibility that patient whole-body absorbed dose estimates may be made using the data. Methods: During the historical interval 2006 â€“ 2010, a total of 165 consecutive thyroid cancer patients were assayed at the time of activity administration and over the following several days. Using a calibrated radiation detector, exposure rates at one meter from the navel were measured between 2 and 5 times before release. By using these measurements and assuming a single-exponential clearance, we were able to evaluate initial exposure rates as well as the biological rate constant \([k(\text{biol})]\) for clearance of I-131 from the body. Results: Regression analyses were used to fit the initial exposure \([X(0)]\) results as a function of administered activity. By least-squares, the slope was determined to be 0.15 mR/h/mCi over a clinically determined activity range of 25 to 250 mCi. At a given activity, there was wide variation of \(X(0)\) due to individual factors such as amount of residual thyroid mass and body habitus. For example, at 150 mCi, \(X(0)\) varied from 15 to 35 mR/h at one meter with the average being 25 mR/h. For the 165 patients, the mean biological clearance constant was 0.049/h. Conclusion: Average initial exposure rates at one meter from 165 NaI-131 patients have been determined. The biological clearance was seen to be much more rapid than the physical decay constant for I-131 (0.0036/h). At a given activity level, variation of exposure rates was approximately +/- 40% over the corresponding patient population.