Iodine-131 Carcinoma Tx Inpatient Record

IODINE - 131 RESIDUAL ACTIVITY CHART

This chart is a generalized estimate of residual activity Patient Specific Activity Calculations Should Be Used

All measurements are made with the same calibrated instrument each time at a distance of one (1) meter with the patient in the upright position or preferably standing. The chart below is for both "ideal point sources" and patients. Since humans do not conform to point source geometry the resultant exposure rate and corresponding mCi of Iodine - 131 remaining in vivo must take the attenuation of the gamma photons into consideration. Patients only approach point source geometry initially after administration.

Measured mR/hr at one (1) meter	mCi of I - 131 point source	mCi of I - 131 patient & attenuation
40	182	235
35	159	206
30	136	176
25	114	147
20	91	118
15	68	88
10	45	59
9	41	53
8	36	47
7	32	41
6	27	35
5	23	29
4	18	23
3	14	18
2	9	12
1	4.5	5.8

mCi of I-131 Pt Source = $\frac{X \text{ mR/hr @ 1 meter}}{0.22 \text{ mR/mCi-hr @ 1m}}$

mCi of I-131 Patient = $\frac{X \text{ mR/hr @ 1meter}}{0.17 \text{ mR/mCi-hr @ 1m}}$

It is highly suggested that data be normalized to each patient's body habitus via the "Initial Conversion Factor" method of residual activity determination.