



DOTT. GABRIELE GALASSI

Esperto Qualificato di Grado II° n.974

PROTEZIONE DALLE RADIAZIONI

Via Isonzo n.2 - 47035 GAMBETTOLA (FC)

CONVERSION TO



RADIATION UNITS

EXPOSURE	$1 \text{ R} = 258 \times 10^{-6} \text{ C kg}^{-1}$
	$1 \text{ C kg}^{-1} \approx 3.876 \times 10^3 \text{ R}$
	An exposure of 1 R is equivalent to an air kerma of 0.87 rad or 8.7 mGy
	An air kerma of 100 rad or 1 Gy is equivalent to an exposure of 115 R

ABSORBED DOSE and KERMA	
1 rad	= $10^{-2} \text{ Gy (gray)}$
1 Gy	= 100 rad
OLD UNITS	NEW UNITS (SI)
1 mrad	= 0.01 mGy
10 mrad	= 0.1 mGy
100 mrad	= 1 mGy
1 rad	= 10 mGy*
10 rad	= 100 mGy
100 rad	= 1 Gy
1 krad	= 10 Gy
10 krad	= 100 Gy
100 krad	= 1 kGy
1 Mrad	= 10 kGy
10 Mrad	= 100 kGy
	* or 1 cGy

DOSE EQUIVALENT	
1 rem	= $10^{-2} \text{ Sv (sievert)}$
1 Sv	= 100 rem
OLD UNITS	NEW UNITS (SI)
0.1 mrem	= 1 μSv
1 mrem	= 10 μSv or 0.01 mSv
10 mrem	= 100 μSv or 0.1 mSv
100 mrem	= 1 mSv
1 rem	= 10 mSv
10 rem	= 100 mSv or 0.1 Sv
100 rem	= 1 Sv

See over for

ACTIVITY

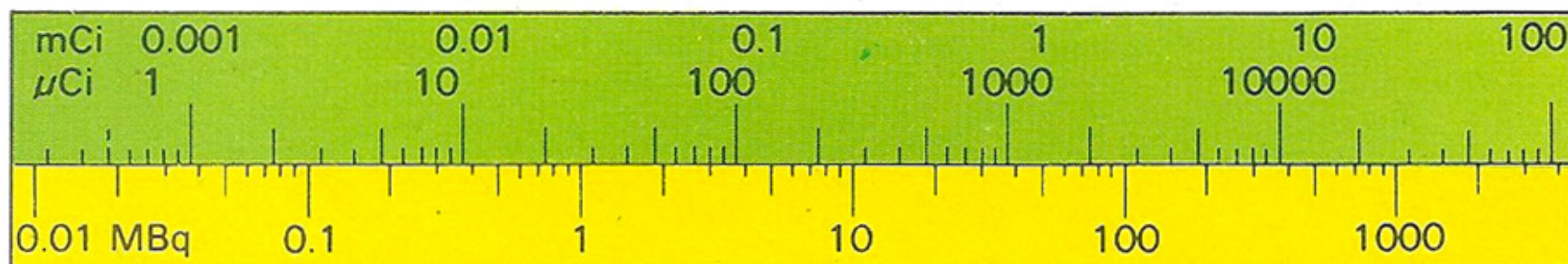


CONVERSION TO **SI** RADIATION UNITS

ACTIVITY	$1 \text{ Ci} = 37 \times 10^9 \text{ Bq}$
	$1 \text{ Bq} \approx 27.03 \times 10^{-12} \text{ Ci}$
	For Clinical Applications the megabecquerel is a convenient multiple and the following table may be of use in making a rough conversion:

microcuries (μCi)	0.27	0.54	1.4	2.7	5.4	14	27	54	140	270	540
megabecquerels (MBq)	0.01	0.02	0.05	0.1	0.2	0.5	1	2	5	10	20

millicuries (mCi)	0.54	1.4	2.7	5.4	14	27	54	140
megabecquerels (MBq)	20	50	100	200	500	1000	2000	5000



For Teletherapy Sources the terabecquerel is a convenient multiple									
kilocuries (kCi)	1.4	2.7	4.1	5.4	6.8	8.1	9.5	10.8	12.2
terabecquerels (TBq)	50	100	150	200	250	300	350	400	450

See over for **EXPOSURE, ABSORBED DOSE
KERMA and DOSE EQUIVALENT**