Dose bands for typical adult examinations (iRefer/ESR/ACR)

	NON IONISING RADIATION	NEGLIGIBLE RISK	MINIMAL RISK	VERY LOW RISK	LOW RISK	MODERATE RISK Adapted from ACR/ESR referral guidelines to reflect certain procedures that may occasionally have a higher associated Radiation Dose than 30mSv
Examples (RCR,2017)	MRI US	Chest X-Ray Limb X-Ray Lumbar spine X-Ray Mammography	IVU Nuclear Medicine: Bone-scan CT Head	CT Chest CT abdomen	CT Thorax Abdomen Pelvis. Some Interventional cases Some Nuclear Medicine scans Some PET/CT scans	CTA Chest/Abdo/Pelvis with contrast. Interventional Radiology e.g. Transjugular Intrahepatic Portosystemic Shunt (TIPS)
Comparison to background radiation (4.03 mSv per year in Ireland RPII, 2014)	No known radiation risk	A few days worth	A few weeks worth	A few years worth	5-10 years worth	7.5 – 25 years worth
Lifetime additional Potential Risk of cancer/exam (RCR, 2017) (NCR, 2017)	No known radiation risk	Less than 1 in 20,000 chance of causing cancer	1 in 20,000 to 1 in 4,000 chance of causing cancer	1 in 4,000 to 1 in 2,000 chance of causing cancer	Less than 1 in 2000 chance of causing cancer	1 in 1,000 to 1 in 500
Typical effective doses (RCR, 2017)	0	0-1 mSv	1-5 mSv	5-10 mSv	10+ 29mSv	30mSv to 100mSv
Examples of Effective Doses (RCR, 2017)	0	Limbs < 0.01mSv Chest: 0.015mSv T-spine: 0.4mSv L-spine: 0.6mSv	Bone-scan: 3mSv Barium enema: 2.2mSv	CT chest: 6.6 mSv CT abdomen: 5.6 mSv	CT Thorax Abdomen Pelvis: 10mSv Whole body PET/ CT: 18mSv	TIPS: 70MSv
National DRL examples (HIQA, 2021)		Chest PA: 0.16 Gy.cm² T-spine (AP & Lat): 3 Gy.cm² L-spine(AP & Lat): 4.3 Gy.cm²	99m Tc Bone-scan: 600MBq Barium enema: 21 Gy.cm²	CT Thorax: 310 mGy.cm CT abdo/pelvis: 556 mGy.cm	CT Thorax Abdomen Pelvis: 770 mGy.cm Whole body PET/ CT: 380MBq (injected activity) + 770 mGy.cm CT TAP	(TIPS)/ Portal Hypertension: 186 Gy.cm²
Equivalent Chest X-Ray (RCR, 2017)	0	1 to 100	100 to 200	200 to 400	400 to 1200 +	2,000 to 6000+
Transatlantic Flight (One way) (1 transatlantic flight=0.08mSv, Public Health England, 2011)	0	0 -12.5	12.5 - 62.5	62.5 -125	125+	375-1,200

*Paediatric patients vary in size-dose and risk will vary significantly from those to adults

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