"Accidental exposure" is where an individual received an exposure in error, when no exposure of any kind was intended. This includes the wrong patient exposed.

"Adequate training" means training which satisfies the requirements of IRMER 2017 Schedule 3.

"ARSAC" is the abbreviation for the Administration of Radioactive Substances, Advisory Committee which approves the licensing of Employers, for each medical radiological installation which is undertaking the administration of radioactive substances to humans, and of individual practitioners.

"Authorisation" is the act of signing to confirm that an exposure requested by a referrer is to be undertaken. Authorisation will be performed by either a practitioner, or an operator entitled to authorise requests on the basis of written justification criteria provided by the practitioner.

"Authorised Manager" refers to a Manager, authorised by the Local Service Lead who will define and assess a range of competences relating to IRMER entitlement, considered appropriate for duties that staff whom they manage undertake.

"Carers and comforters" means individuals knowingly and willingly incurring an exposure to ionising radiation by helping, other than as part of their occupation, in the support and comfort of individuals undergoing or having undergone an exposure.

"Clinical Audit" means a systematic examination or review of medical radiological procedures which seeks to improve the quality and the outcome of patient care through structured review whereby radiological practices, procedures and results are examined against agreed standards for good medical radiological procedures, intended to lead to modification of practices where indicated and the application of new standards if necessary.

"Clinical Evaluation" is the documented evaluation of the medical exposure.

"Clinical Radiation Expert" is the registered medical or dental practitioner with sufficient radiation related qualifications and experience to undertake the role of IRMER practitioner in a research project.

"Clinically Significant Accidental or Unintended Exposure (CSAUE)" is an incident in which the outcome is clinically significant. Criteria to determine whether an incident is clinically significant have been published by professional bodies in "IR(ME)R: Implications for clinical practice in diagnostic imaging, interventional radiology and diagnostic nuclear medicine"

"Competency Assessor" refers to a Manager, who may be the Lead Clinician for a Department / Service , the Local Service Lead or a Manager authorised by the Local Service Lead, who will define and assess a range of competences relating to IRMER entitlement, considered appropriate for duties that staff whom they manage undertake. They will also maintain records of the competency and training undertaken for such staff.

"Department" is the part of a Service Area located at a particular site. e.g. Nuclear Medicine Department located at Queen Elizabeth University Hospital.

"Diagnostic Reference Levels" means dose levels in medical radio-diagnostic or interventional radiology practices or, in the case of radioactive medicinal products, levels of activity, for typical examinations for groups of standard-sized patients or standard phantoms for broadly defined types of equipment.

"Dose Constraint" means a restriction on the prospective doses to individuals which may result from a defined source. In research projects where there is no direct medical benefit to the individual from the exposure a dose constraint must be set, and individual doses must be within a reasonable margin of this constraint

"Dose variable" is any quantity related to the dose to the patient that may indicate that an exposure is greater than anticipated. This could be specific measured or calculated dose quantities such as the dose-area product for radiography and fluoroscopy, or the dose length product for CT. It could also be any other indicator of a variable related to dose, such as the mAs, exposure time or detector dose indicator.

"Employers Procedures" are the written procedures that NHS Greater Glasgow and Clyde have in place to comply with the requirements of the Ionising Radiation (Medical Exposure) Regulations (IRMER) 2017.

"Entitlement" is the process whereby a manager/Lead Clinician agrees an individual is competent to undertake duties conferred by the role of referrer, practitioner or operator. Entitlement for operators and practitioners will be confirmed in writing and the scope of entitlement will by confirmed by the competency assessor and the duty holder and will be supported by verifiable training.

"Evaluation" means interpretation of the outcome and implications of, and of the information resulting from, a medical exposure.

"General Manager" means the General Manager for the Service/Sector which owns and operates the radiation equipment.

"Investigation Manager" identified by the Service Lead is responsible for carrying out a detailed investigation of incidents (where required).

"Ionising Radiations Regulations 2017 (IRR17)" are the regulations governing the safety of staff and the public where ionising radiations are in use.

"Ionising Radiation (Medical Exposure) Regulations 2017 (IRMER 2017) are the regulations governing the safe use of ionising radiations for medical purposes, which require the employer to have written procedures in place to ensure the safety of all patients undergoing medical exposures.

"IRMER Approval Panel" advises the IRMER Policy Lead about the training and knowledge requirements to perform specific tasks under IRMER. The panel considers whether the evidence presented of qualifications, experience, and training for groups or individuals, who have the need to act as a duty holder under IRMER is sufficient to allow them to act in the role of referrer for defined groups of medical or dental exposures. It comprises representatives of X-ray and Nuclear Medicine Departments. It will include Lead Radiologists, Nuclear Medicine physicists, Radiography managers and the Diagnostics Quality Manager.

"IRMER Policy Lead" is the clinical management representative responsible to the Chief Executive Officer for ensuring that structures are in place for entitlement of IRMER duty holders for all types of medical and dental exposures. The person is the Chief of Medicine for the Diagnostics Directorate, who also chairs the Board Radiation Safety Committee.

"IRMER Working Party" is the committee with responsibility for reviewing the Employer's Procedures, and comprises representatives of X-ray, Nuclear Medicine and Health Physics Departments. It will include Lead Radiologists, Nuclear Medicine physicists, Radiography managers, the Diagnostics Quality Manager and meets under the chairmanship of the IRMER Policy Lead. Members may be co-opted as deemed necessary.

"Justification" is the process of confirmation that an exposure is justified by the clinical benefit that will accrue, taking account of the individual, their medical history, the requirements for management of the patient, the potential health risk from the exposure and the availability of suitable technique not employing ionising radiation. Justification of an exposure may also be confirmed on non-medical grounds, or as part of an approved research project.

"Lead Clinician" refers to a clinician with IRMER responsibilities for services provided by a group of hospitals

"Level 1 Documents" are Procedures and associated forms used throughout the whole of NHS Greater Glasgow & Clyde.

"Level 2 Documents" are Procedures and associated Forms for a Service Area and are used across all departments within a Service Area.

"Level 3 Documents" are Procedures and Forms for a Department that are NOT used across all Departments within a Service Area.

"Local Service Lead (LSL)" the local manager entitled to assign operator competences. This refers to the local person with responsibility for running the clinical service.

"Medical exposure" means any exposure of an individual as part of their medical diagnosis or treatment; or as part of health screening programmes; those voluntarily participating in medical or biomedical diagnostic or therapeutic research programmes; of carers and comforters; of asymptomatic individuals; or of those undergoing non-medical imaging on medical equipment.

"Medical Physics Expert (MPE)" means an individual or a group of individuals, having the knowledge, training and experience to act or give advice on matters relating to radiation physics applied to exposure, whose competence in this respect is recognised by the Secretary of State.

"Non-medical imaging exposures" means any deliberate exposure of humans for imaging purposes where the primary intention of the exposure is not to bring a health benefit to the individual being exposed.

"Operator" means any person who is entitled, in accordance with the employer's procedures, to carry out practical aspects of medical exposures except where they do so under the direct supervision of a person who is adequately trained.

"Optimisation" is the process involved in ensuring that doses arising from the exposures are kept as low as reasonably practicable consistent with the intended purpose of the exposure

"Practitioner" means a registered medical practitioner, dental practitioner or other registered health care professional who is entitled, in accordance with the employer's procedures, to take responsibility for an individual medical exposure.

"Procedures" define the steps to be taken to carry out a task.

"Quality Assurance" means any planned and systematic action necessary to provide adequate confidence that a structure, system, component or procedure will perform satisfactorily and safely complying with agreed standards and includes quality control.

"Radiation incident" is an error where the delivery of radiation is different to that intended and which could result in unnecessary harm to the patient. . It does not include repeat exposures where there has been no procedural, human, systematic or equipment errors e.g. repeats required due to patient movement or contrast extravasation. Nor does it include foetal exposures where there has been no procedural error unless the exposure meets the definition of a Clinical SAUE.

"Radiation Protection Adviser (RPA)" means a person appointed by the Health Board to advise on radiation protection matters, as required by the IRR17. The person will hold a specialist Radiation Protection Adviser certificate from an awarding body recognised by the Health and Safety Executive.

"Referrer" means a registered medical practitioner, dental practitioner or other registered health care professional who is entitled, in accordance with the employer's procedures, to refer individuals for medical exposure to a practitioner.

"Scientific Director" is the Head of the Greater Glasgow and Clyde Department of Clinical Physics and Bio-Engineering.

"Service" is a group of departments that carry out the same type of work. e.g. a group of Nuclear Medicine Departments.

"Service Lead (SL)" refers to a manager of services provided by a group of hospitals.

"Significant Accidental or Unintended Exposure (SAUE)" is an exposure which is significantly greater than intended. The enforcing authorities have published guidance on notification thresholds and requirements for SAUE (Significant accidental and unintended exposures under IR(ME)R. Guidance for employers and duty-holders). The regulations require that incidents meeting the SAUE criteria must be notified to the relevant enforcing authorities within strictly defined timescales.

"Site" means a physical location. e.g. Glasgow Royal Infirmary

"Target Doses" must be specified for research projects in which there are expected to be medical benefits for the individual from the exposures.

"**Under-Exposure**" applies to radiotherapy only and is where the delivered dose to the planned treatment volume is 0.9 or less times the intended dose or administered activity (whole course) excluding where the under-exposure to the target volume is a result of a geographical miss which is reportable under other conditions

"Unintended exposure" although the exposure of an individual was intended, the exposure they received was significantly greater or different to that intended. For example, in the dose received, the modality or technique carried out, anatomy, radiopharmaceutical or timing of exposure. These can happen for many reasons including procedural, systematic or human error.