

**INTERNATIONAL ATOMIC ENERGY AGENCY  
SAFRAD**

**GUIDELINES FOR THE INTERVENTIONALIST  
(INTERVENTIONAL RADIOLOGIST, INTERVENTIONAL  
CARDIOLOGIST, CARDIAC SURGEON,...)**

The **SAFety in RADIological procedures reporting system** (SAFRAD) for fluoroscopically-guided interventional procedures is the creation of an international collection centre for X-ray related radiation adverse effects (deterministic effects). Based on voluntary anonymous reporting, this educational reporting system will help the medical community to better assess the risk of such radiation injuries, their frequency and their severity.

Thanks to the detailed information provided within the reports, a better knowledge of factors leading to high exposure of patients will also be obtained as well as a refined protocol for the follow up of patients.

The SAFRAD reporting system reflects the concerns of IAEA to raise awareness of radiation protection concerns amongst the radiation users and to help define evidence-based alert levels for deterministic effects of radiation.

The recording of all exposure exceeding one of the SAFRAD trigger levels will help establish a frequency rate of potentially harmful fluoroscopically-guided examinations in relation to radiation injuries, and the relative frequency and severity of actual occurrence of deterministic effects. The recording of the other trigger events will help recognize the levels of occurrence of these unintended events and possibly reduce their frequency.

**Guidelines for the interventionalist :**

**Ref to training material**

[https://rpop.iaea.org/RPOP/RPoP/Content/AdditionalResources/Training/1\\_TrainingMaterial/Cardiology.htm](https://rpop.iaea.org/RPOP/RPoP/Content/AdditionalResources/Training/1_TrainingMaterial/Cardiology.htm)