

Preface

This Report was developed under the auspices of Program Area Committee 2 of the National Council on Radiation Protection and Measurements, the committee that provides oversight for operational radiation safety.

Fluoroscopically-guided interventional medical procedures (*e.g.*, diagnostic angiography, angioplasty, stent placement) are now commonly performed in the United States, are often less invasive and less costly, and result in shorter hospital stays than surgical procedures. They are performed by radiologists and other medical specialists (*e.g.*, cardiologists, orthopedic surgeons) with the assistance of medical support staff.

This Report will be of benefit to these physicians and the medical support staff, particularly those who currently participate in fluoroscopically-guided interventional procedures but do not have sufficient training in the practical radiation protection aspects of the use of the equipment for the procedures (*e.g.*, knowledge of equipment operation, optimal imaging techniques, radiation dose management for patients and medical staff, benefit-risk tradeoffs, and the potential for early or late detrimental radiation effects). An extensive bibliography is provided to facilitate access to the primary literature.

This Report is also intended for policymakers who can place radiation-dose management requirements on those who conduct fluoroscopically-guided interventional procedures with regard to:

- optimizing imaging protocols;
- managing procedure time;
- utilizing available radiation protective equipment and dose-management features;
- tracking and trending radiation doses to patients and medical staff; and
- credentialing and privileging physicians to use the fluoroscopic equipment for these specialized procedures.

This Report was prepared by Scientific Committee 2-3 on Radiation Safety Issues for Image-Guided Interventional Medical Procedures. Serving on Scientific Committee 2-3 were:

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The Council expresses its appreciation to the Committee members for the time and effort devoted to the preparation of this Report. NCRP gratefully acknowledges the financial support provided by the National Cancer Institute (NCI) under Grant Number R24 CA074296-10. The contents of this Report are the sole responsibility of NCRP, and do not necessarily represent the official views of NCI, National Institutes of Health.

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