



## Assessment of Radiation Dose in X-ray and CT Exams

Guest Editor:

**Dr. Kosuke Matsubara**

Kanazawa University, Kanazawa,  
Japan

Deadline for manuscript  
submissions:

**closed (30 September 2020)**

### Message from the Guest Editor

Medical imaging and interventional radiology procedures that use ionizing radiation play a significant role in patient healthcare. But the biologic effects of X-ray exposures related to medical imaging and interventional radiology procedures have been investigated and debated for a long time. The principle of as low as reasonably achievable (ALARA) has long provided a basic guideline for medical imaging. Especially, radiation doses in computed tomography (CT) are nontrivial and the number of individuals being exposed is large and rapidly increasing. For patient undergoing medical imaging or interventional radiology procedure, both the amount of radiation that is incident on the patient and the total radiation received by the patient need to be determined. This information can be used for the derivation of local and total dose quantities that are related to deterministic and stochastic risks to the patient. This Special Issue will include studies on the assessment of radiation doses in CT, radiography, fluoroscopy, angiography, and interventional radiology procedures. The dose assessment methods will include direct/indirect measurement, simulation, and the deep learning approach.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Andreas Kjaer

Department of Clinical  
Physiology, Nuclear Medicine &  
PET National University Hospital,  
Rigshospitalet, University of  
Copenhagen, Blegdamsvej 9, DK-  
2100 Copenhagen, Denmark

## Message from the Editor-in-Chief

You are cordially invited to submit research articles, short communications, comprehensive reviews, case reports or interesting images for consideration and publication in *Diagnostics* (ISSN 2075-4418). *Diagnostics* is published in open access format – research articles, reviews and other contents are released on the Internet immediately after acceptance. The scientific community and the general public have unlimited and free access to the content as soon as it is published. We would be pleased to welcome you as one of our authors.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Medicine, General and Internal) / CiteScore - Q2 (Internal Medicine)

## Contact Us

---

*Diagnostics* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/diagnostics](http://mdpi.com/journal/diagnostics)  
[diagnostics@mdpi.com](mailto:diagnostics@mdpi.com)  
[X@diagnostic\\_mdpi](https://twitter.com/diagnostic_mdpi)