

Human Health

• Medical Physics • Radiotherapy • Nuclear Medicine • Nutrition



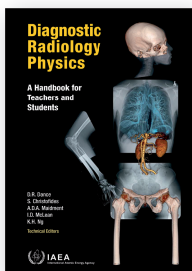
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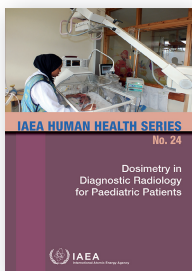
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Diagnostic Radiology Physics: A Handbook for Teachers and Students

This publication is aimed at students and teachers involved in programmes that train medical physicists for work in diagnostic radiology. It provides, in the form of a syllabus, a comprehensive overview of the basic medical physics knowledge required for the practice of modern diagnostic radiology. This makes it particularly useful for graduate students and residents in medical physics programmes. The material presented in the publication has been endorsed by the major international organizations and is the foundation for academic and clinical courses in both diagnostic radiology physics and in emerging areas such as imaging in radiotherapy.

(680 pp., 244 figs; 2014) • ISBN 978-92-0-131010-1 •
STI/PUB/1564 • €90.00



Dosimetry in Diagnostic Radiology for Paediatric Patients

IAEA Human Health Series No. 24

This publication draws on an IAEA coordinated research project and provides recommendations specific to the measurement and interpretation of radiation dose to children received as a result of undergoing diagnostic radiological examinations. It complements the work of *Dosimetry in Diagnostic Radiology: A Code of Practice* (Technical Report Series No. 457) and extends this work in methodologies for dosimetry in clinical environments to that required for non-adult patients. It includes dosimetry methodologies for general radiography, fluoroscopy and computer tomography for both phantom and patient measurements. Details are given on dose audit strategies that take into account the size of children and on how the results of such audits can be used to indicate or be related to diagnostic reference levels. The effects of radiation on non-adults

are also reviewed, as are the factors involved in the management of paediatric dosage in the clinical setting.

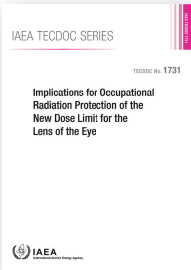
(160 pp., 14 figs; 2014) • ISBN 978-92-0-141910-1 •
STI/PUB/1609 • €46.00

Guided Intraoperative Scintigraphic Tumour Targeting (GOSTT); Implementing Advanced Hybrid Molecular Imaging and Non-Imaging Probes for Advanced Cancer Management

IAEA Human Health Series No. 29

This publication provides an updated source for professionals involved in employing guided intra-operative scintigraphic tumour targeting (GOSTT). Its content contributes to supporting both the clinical decision making process and the implementation of minimally invasive surgical procedures. The publication provides an update on innovations in the use of radiopharmaceuticals for sentinel lymph node mapping and sentinel lymph node biopsy. In addition, it provides an update on advances in the implementation of hybrid imaging technologies for the surgical management of patients with cancer in conjunction with intraoperative regional lymph node mapping. The experience with the use of small field scintigraphic imaging devices in the operating theatre is also presented.

(Forthcoming 2014) • ISBN 978-92-0-102214-1 •
STI/PUB/1648 • €75.00



Implications for Occupational Radiation Protection of the New Dose Limit for the Lens of the Eye

IAEA TECDOC Series No. 1731

This publication provides interim guidance on the implications of the new dose limit for the lens of the eye for occupational radiation protection that is applicable to planned, exposure situations. The new dose limit for the lens of the eye is included in the IAEA's Radiation Protection and Safety of Radiation Sources: International

Basic Safety Standards (IAEA Safety Standards Series No. GSR Part 3).

(2013) • ISBN 978-92-0-115213-8 • IAEA-TECDOC-1731 • €18.00



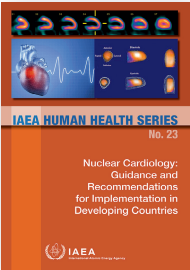
Justification of Medical Exposure in Diagnostic Imaging

Proceedings of an International Workshop held in Brussels, Belgium, 2-4 September 2009

Proceedings Series

This is the proceedings of an international workshop on justification of medical exposure in diagnostic imaging, jointly organized by the IAEA and the European Commission. The workshop brought together experts from many countries and organizations to discuss how to ensure more effective application of justification in diagnostic imaging. Major areas that need action were identified, such as the coordination of methods and evidence used as a basis for clinical imaging recommendations, engagement of all relevant organizations in the deployment of these recommendations, and involvement of manufacturers and referring healthcare providers. Furthermore, the important role of education and training was re-emphasized. In the conclusion, the workshop participants highlighted that regulatory authorities have a key role in ensuring effective justification, and that an effective partnership with the medical community must be maintained to do this.

(175 pp., 24 figs; 2012) • ISBN 978-92-0-121110-1 • STI/PUB/1532 • €40.00



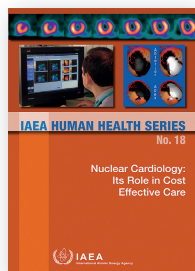
Nuclear Cardiology: Guidance and Recommendations for Implementation in Developing Countries

IAEA Human Health Series No. 23

This publication, which accompanies Nuclear Cardiology: Its Role in

Cost Effective Care (IAEA Human Health Series No. 18), discusses non-invasive imaging modalities with an emphasis on myocardial perfusion imaging (MPI). MPI is one of the most complex nuclear techniques and by far the most widely used for non-invasive detection of coronary artery disease. The book covers all aspects of this modality, from clinical indications to reporting. Chapters describe clinical scenarios and provide examples of good strategies and recommendations of good practice. The aim of the publication is to help strengthen current nuclear cardiology practices, so that they meet accepted standards and that providers can deliver better quality services to the population. Target readers are nuclear medicine physicians, cardiologists and cardiac surgeons, but also all other clinical specialists involved in managing and treating cardiac diseases and particularly coronary artery diseases.

(108 pp., 27 figs; 2012) • ISBN 978-92-0-131710-0 •
STI/PUB/1566 • €32.00



Nuclear Cardiology: Its Role in Cost Effective Care

IAEA Human Health Series No. 18

This publication presents a comprehensive overview of cardiovascular disease (CVD) as a public health problem in developing countries, the relative role of nuclear cardiology methods within a scenario of unprecedented technological advances and the evidence behind recommendations. The potential role of non-invasive functional imaging in the diagnosis of obstructive coronary artery disease and more widely in defining the global burden of CVD is also discussed, as well as the need for training, education and quality assurance in nuclear cardiology practice.

(87 pp., 32 figs; 2012) • ISBN 978-92-0-117410-9 •
STI/PUB/1516 • €30.00

and augmented with explanations as to the causes of, and solutions to, each individual image problem. The atlas will prove useful to physicists, physicians, technologists, and service engineers in the clinical field.

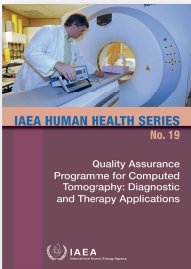
**(89 pp., 101 figs; 2014) • ISBN 978-92-0-101014-8 •
STI/PUB/1642 • €60.00**



Proceedings of an International Conference on Radiation Protection in Medicine: Setting the Scene for the Next Decade
Proceedings of an International Conference held in Bonn, 3-7 December 2012
Proceedings Series

This publication presents the proceedings of the International Conference on Radiation Protection in Medicine – Setting the Scene for the Next Decade, held in Bonn, 3–7 December 2012. The aims were to indicate gaps in current approaches to radiation protection in medicine; identify tools for improving radiation protection in medicine; review advances, challenges and opportunities in the field and assess the impact of the international action plan for the radiation protection of patients, in order to prepare new international recommendations.

**(Forthcoming 2014) • ISBN 978-92-0-103914-9 •
STI/PUB/1663 • €130.00**

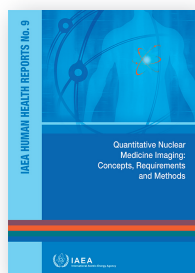


Quality Assurance Programme for Computed Tomography: Diagnostic and Therapy Applications
IAEA Human Health Series No. 19

This publication presents a harmonized approach to quality assurance in the field of computed tomography applied to both diagnostics and therapy. It provides a careful analysis of the principles and specific instructions that can be used for a quality assurance programme for optimal performance and reduced patient dose in diagnostic

radiology. In some cases, radiotherapy programmes are making a transition from 2-D to 3-D radiotherapy, a complex process which critically depends on accurate treatment planning. In this respect, the authors also provide detailed information about the elements needed for quality assurance testing, including those relating to accurate patient characterization as needed for radiotherapy treatment planning.

(171 pp., 43 figs; 2012) • ISBN 978-92-0-128910-0 •
STI/PUB/1557 • €48.00

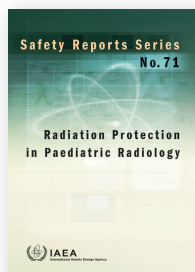


Quantitative Nuclear Medicine Imaging: Concepts, Requirements and Methods

IAEA Human Health Reports No. 9

This publication reviews the current state of the art of image quantification and provides a solid background of tools and methods for medical physicists and other professionals who are faced with quantification of radionuclide distribution in clinical practice. It describes and analyses the physical effects that degrade image quality and affect the accuracy of quantification, and describes methods to compensate for them in planar, single photon emission computed tomography (SPECT) and positron emission tomography (PET) images.

(59 pp., 23 figs; 2014) • ISBN 978-92-0-141510-3 •
STI/PUB/1605 • €33.00



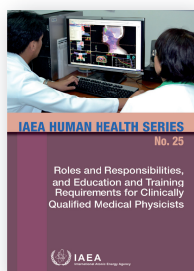
Radiation Protection in Paediatric Radiology

Safety Reports Series No. 71

This publication provides guidance to radiologists, other clinicians and radiographers/technologists involved in using ionizing radiation for diagnostic procedures with children and adolescents, and should also be of value to medical physicists and regulators. It focuses on the measures necessary to provide protection from the effects of radiation

using the principles established in the IAEA's Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards (IAEA Safety Standards Series No. GSR Part 3) and the priority accorded to the area. The emphasis throughout is on the special requirements of paediatrics.

(111 pp., 2 figs; 2013) • ISBN 978-92-0-125710-9 •
STI/PUB/1543 • €38.00



Roles and Responsibilities, and Education and Training Requirements for Clinically Qualified Medical Physicists

IAEA Human Health Series No. 25

This publication addresses the shortfall of well trained and clinically qualified medical physicists working in radiation medicine. The roles, responsibilities and clinical training requirements of medical physicists have not always been well defined or well understood by health care professionals, health authorities and regulatory agencies. To fill this gap, this publication provides recommendations for the academic education and clinical training of clinically qualified medical physicists, including recommendations for their accreditation certification and registration, along with continuous professional development. The goal is to establish criteria that support the harmonization of education and clinical training worldwide.

(71 pp., 2 figs; 2013) • ISBN 978-92-0-142010-7 •
STI/PUB/1610 • €32.00



Standards, Applications and Quality Assurance in Medical Radiation Dosimetry (IDOS)

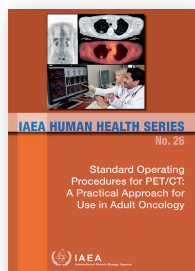
Proceedings of an International Symposium held in Vienna, Austria, 9–12 November 2010 (2 Volumes)

Proceedings Series

This publication presents the proceedings of an international symposium on standards,

applications and quality assurance in medical radiation dosimetry. It includes a selection of peer reviewed papers that were presented at the symposium. The symposium provided a forum for physicists and scientists of medical institutions, research centres and standards laboratories to discuss advances in radiation dosimetry made during the past decade and to exchange scientific knowledge. The topical sessions included all specialties in radiation medicine (radiation oncology, nuclear medicine and diagnostic radiology) and radiation protection dosimetry, with a specific focus on those areas where the standardization of dosimetry has improved in recent years (brachytherapy, diagnostic radiology and nuclear medicine). One session was exclusively devoted to the challenging issues of dosimetry in small and non-standard radiotherapy beams. The publication summarizes the present status and outlines future trends in medical radiation dosimetry, and also identifies possible areas for improvement.

(925 pp., 289 figs; 2012) • ISBN 978-92-0-116210-6 •
STI/PUB/1514 • €120.00



Standard Operating Procedures for PET/CT: A Practical Approach for Use in Adult Oncology

IAEA Human Health Series No. 26

Over the last 20 years, PET (positron emission tomography) and PET/CT (positron emission tomography/computed tomography) have revolutionized the care of cancer patients. It is one of the fields in medical imaging with the highest growth rate. Proper cancer management requires highly accurate imaging in order to select the correct treatment that applies to the individual patient. The ability to provide, in a single imaging session, detailed anatomical and metabolic/functional information, has established PET/CT as an indispensable imaging procedure in the management of many types of cancer. The reliability of the images acquired on a PET/CT scanner depends on the quality

of the imaging technique. This publication addresses an important aspect of PET/CT imaging, namely how to perform the ^{18}F -FDG PET/PET scan in an adult patient with cancer.

(116 pp., 19 figs; 2013) • ISBN 978-92-0-143710-5 •
STI/PUB/1616 • €35.00

The Information System on Occupational Exposure in Medicine, Industry and Research (ISEMIR): Interventional Cardiology

IAEA TECDOC Series No. 1735

This publication presents the results achieved by the Working Group on Interventional Cardiology in assessing the status of occupational radiation protection in interventional cardiology (IC) throughout the world. It also reports on the main activities in developing an international database to be used by IC facilities as a tool for benchmarking and improving their implementation of occupational radiation protection.

(2014) • ISBN 978-92-0-100514-4 • IAEA-TECDOC-1735 • €18.00

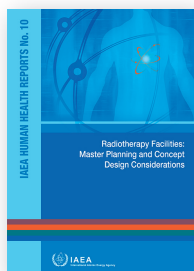
Worldwide Implementation of Digital Imaging in Radiology

IAEA Human Health Series No. 28

This publication provides a basic introduction to digital technology and digital networks as well as an overview of the issues to consider when implementing such technology in diagnostic radiology. In an area that is under rapid development, it provides a careful analysis of the principles and advice on implementation and sustainability of digital imaging and teleradiology. The transition from film to digitally based medical imaging is complex and requires knowledge and planning to be successful. This comprehensive resource guide contains information on the needs and implications of a transition to digital imaging with case studies for different facilities requiring different levels on communication connectivity. It is aimed at hospital administrators and managers, radiologists and radiographers/technologist, medical

physicists and clinical engineers as well as information technology staff.

**(Forthcoming 2014) • ISBN 978-92-0-102114-4 •
STI/PUB/1647 • €60.00**

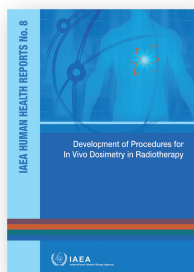


Radiotherapy Facilities: Master Planning and Concept Design Considerations

IAEA Human Health Reports No. 10

This publication provides guidelines on how to plan a radiotherapy facility in terms of the strategic master planning process including the legal, technical and infrastructure requirements. It outlines a risk assessment methodology, a typical project work plan and describes the professional expertise required for the implementation of such a project. Generic templates for a block design are suggested, which include possibilities for future expansion. These templates can be overlaid onto the designated site such that the most efficient workflow between the main functional areas can be ensured. A sample checklist is attached to act as a guideline for project management and to indicate the critical stages in the process where technical expert assistance may be needed. The publication is aimed at professionals and administrators involved in infrastructure development, planning and facility management, as well as engineers, building contractors and radiotherapy professionals.

**(31 pp., 7 figs; 2014) • ISBN 978-92-0-101914-1 •
STI/PUB/1645 • €29.00**



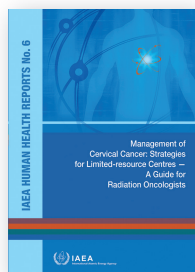
Development of Procedures for In Vivo Dosimetry in Radiotherapy

IAEA Human Health Reports No. 8

This publication, which draws on the experiences of an IAEA coordinated research project (CRP) and on input from experts in the field, provides

a comprehensive overview of the development of procedures for in vivo dosimetry in radiotherapy. It elaborates on the technology behind in vivo dosimetry and describes an initial set of measurements. Emphasis is given to patient dose studies, both evaluating the clinical value of in vivo dosimetry and comparing different in vivo dosimetry systems in a clinical setting. The findings of the CRP, which are summarized in this publication, will serve as a useful resource for hospital physicists seeking to establish an in vivo dosimetry programme in a radiotherapy centre and will help them in the selection of appropriate dosimetry systems.

(179 pp., 117 figs; 2013) • ISBN 978-92-0-141610-0 • STI/PUB/1606 • €34.00

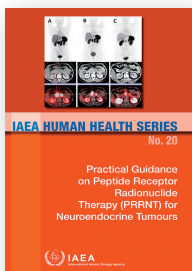


Management of Cervical Cancer: Strategies for Limited-resource Centres — A Guide for Radiation Oncologists

IAEA Human Health Reports No. 6

Clinical guidelines for the management of cervical cancer exist in the published literature. However, these guidelines have usually been developed in and for an affluent environment where all modern diagnosis and treatment modalities and tools are available to the practitioner. This publication is aimed at radiation oncologists working in centres with limited resources and treating a large number of patients with cervical cancer. The approach and the techniques recommended are intended to be evidence based, simple, feasible and resource sparing, to the extent that this is possible when dealing with a complex treatment modality such as radiotherapy.

(77 pp., 17 figs; 2013) • ISBN 978-92-0-128810-3 • STI/PUB/1556 • €18.00



Practical Guidance on Peptide Receptor Radionuclide Therapy (PRRNT) in Neuroendocrine Tumours

IAEA Human Health Series No. 20

This publication provides comprehensive multidisciplinary guidance to promote standardized, effective and safe implementation of best practices for treating neuroendocrine and gastroenteropancreatic tumours through applying peptide receptor radionuclide therapy (PRRNT). Taking into account the latest international classifications of neuroendocrine tumours, both PRRNT as a sole treatment and as a treatment in combination with other options are considered. Comprehensive protocols for employing either ^{90}Y or ^{177}Lu tagged somatostatin receptor targeting peptides and clinically tested protocols for renal protection are presented. The publication comprises a comprehensive compilation of medical evidence and experience. Furthermore, it contains clinical presentations, eligibility criteria and means of assessing the effectiveness of therapy utilizing molecular and morphological medical imaging techniques. The publication is a practical reference for specialists in clinical oncology and in nuclear medicine deploying and executing a comprehensive programme for treating patients with neuroendocrine tumours.

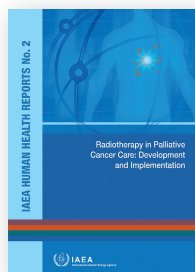
(123 pp., 5 figs; 2013) • ISBN 978-92-0-129210-0 • STI/PUB/1560 • €39.00

Radiotherapy in Cancer Care: Facing the Global Challenge

Cancer treatment is complex and calls for a diverse set of services. Radiation therapy is recognized as an essential tool in the cure and palliation of cancer. Currently, access to radiation treatment is limited in many countries and non-existent in some. This lack of radiation therapy resources exacerbates the burden of disease, and underscores the continuing health care disparity among nations. Closing this gap represents an essential measure in addressing

this global health equity problem. This publication presents a comprehensive overview of the major topics and issues to be taken into consideration when planning a strategy to address this global problem, in particular in low and middle income countries. With contributions from leaders in the field, it provides an introduction to the achievements and issues of radiation therapy as a cancer treatment modality around the world. Dedicated chapters focus on the new radiotherapy technologies, proton beams, carbon ion, intra operative radiotherapy, radiotherapy for children, treatment of HIV-AIDS malignancies, and costing and quality management issues.

**(Forthcoming 2014) • ISBN 978-92-0-115013-4 •
STI/PUB/1638 • €62.00**

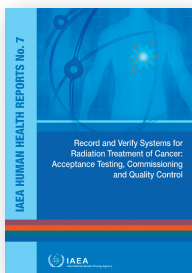


Radiotherapy in Palliative Cancer Care: Development and Implementation

IAEA Human Health Reports No. 2

Palliative care is increasingly recognized as an important component of quality care for cancer patients. Improving access to, and availability and quality of, comprehensive palliative care in cancer treatment is an important and ongoing global challenge. This publication focuses on radiotherapy as a major tool and gives summaries of current approaches in palliative radiotherapy and care. It describes the steps needed to enhance access to and quality of care, and to incorporate palliative radiotherapy and palliative care within an integrated multidisciplinary approach. It is hoped that this publication will be a resource for administrators, specialists and teachers working to improve the management of palliative care and radiotherapy for patients.

**(53 pp., 2 figs; 2012) • ISBN 978-92-0-109009-6 •
STI/PUB/1388 • €16.00**

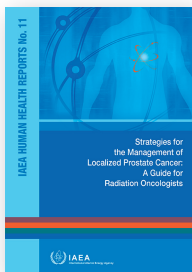


Record and Verify Systems for Radiation Treatment of Cancer: Acceptance Testing, Commissioning and Quality Control

IAEA Human Health Reports No. 7

This publication serves as a useful guide for medical physicists in radiation oncology, radiation oncologists and radiation therapists, in ensuring accuracy, safety and quality in radiation therapy. Record and verify systems (RVSS) were developed to reduce the risk of treatment errors in radiation oncology. These have recently evolved into complete radiotherapy information management systems that interface with imaging systems, treatment planning computers, and treatment delivery systems. To function as intended, RVSS must be subject to a comprehensive quality assurance (QA) programme. This publication provides practical guidelines for a comprehensive QA programme and its implementation. It describes the QA programme, including acceptance tests and the commissioning process that should be used in conjunction with the installation of a new RVSS. It is also highlighted that some of the tests performed at installation must be repeated regularly as part of the periodic quality control checks.

(39 pp., 1 fig.; 2013) • ISBN 978-92-0-141710-7 • STI/PUB/1607 • €22.00



Strategies for the Management of Localized Prostate Cancer: A Guide for Radiation Oncologists

IAEA Human Health Reports No. 11

Clinical guidelines for the management of prostate cancer exist in the published literature. However, these guidelines have usually been developed in and for affluent health care environments where all modern diagnostic and treatment modalities are available. In limited resource environments the radiation oncologist is faced with the question: what

would be the minimum acceptable (evidence based) line of action with the limited resources available? Clinical guidelines focusing on low to middle income countries aim to provide a practical tool for these practitioners. This publication is aimed at the radiation oncologists working in centres with limited resources and treating a large number of patients with prostate cancer on a daily basis. The approach and techniques recommended are intended to be simple, feasible and resource sparing to the extent that is possible when dealing with a complex treatment modality. It takes into consideration the cost–benefit of the intervention to avoid unnecessary overtreatment of indolent tumours.

**(39 pp., 4 figs; 2014) • ISBN 978-92-0-102014–7 •
STI/PUB/1646 • €38.00**

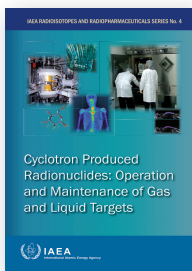


Cyclotron Produced Radionuclides: Guidance on Facility Design and Production of [18F]Fluorodeoxyglucose (FDG)

**IAEA Radioisotopes and
Radiopharmaceuticals Series
No. 3**

This publication provides practical information for planning and operating a fluorodeoxyglucose (FDG) production facility, including design and implementation of the laboratories, facility layout, equipment, personnel and quality assessment of FDG. Also included is information useful for assessing the resource requirements, planning and aspects necessary for compliance with the applicable national regulatory requirements for manufacturing of radiopharmaceuticals.

**(153 pp., 11 figs; 2012) • ISBN 978-92-0-117310–2 •
STI/PUB/1515 • €55.00**

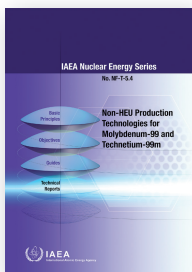


Cyclotron Produced Radionuclides: Operation and Maintenance of Gas and Liquid Targets

**IAEA Radioisotopes and Radiopharmaceuticals Series
No. 4**

This publication, which draws on the results of an IAEA coordinated research project and on input from dedicated experts in the field, provides a comprehensive overview of the technologies involved in the manufacture and operation of liquid and gas targets for cyclotron based production of radioisotopes. It covers the technology behind targetry, techniques for preparation of targets, irradiation of targets under high beam currents, target processing and target recovery, among others. The publication will be useful to scientists and technologists interested in translating cyclotron based radioisotope production into practice, as well as to postgraduate students in the field.

**(104 pp., 6 figs; 2012) • ISBN 978-92-0-130710-1 •
STI/PUB/1563 • €35.00**



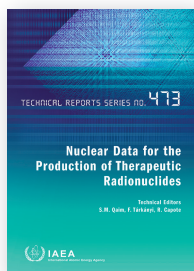
Non-HEU Production Technologies for Molybdenum-99 and Technetium-99m

**IAEA Nuclear Energy Series
No. NF-T-5.4**

Technetium-99m (^{99m}Tc) is used in approximately 85% of diagnostic imaging procedures in nuclear medicine worldwide. Interruptions in the supply of molybdenum (^{99}Mo), which is used to produce ^{99m}Tc , prompted governments and international agencies to step up efforts to identify both short and long term solutions to supply shortages. These calls for action resulted in economic and technology studies on the ^{99}Mo supply chain. The present publication supports global efforts to eliminate the civilian use of enriched uranium in

$^{99}\text{Mo}/^{99\text{m}}\text{Tc}$ production and proposes several alternative or supplementary technologies.

(60 pp., 20 figs; 2013) • ISBN 978-92-0-137710-4 •
STI/PUB/1589 • €24.00



Nuclear Data for the Production of Therapeutic Radionuclides

Technical Reports Series No. 473

This publication reports the results of an IAEA coordinated research project on nuclear data for the production of therapeutic radionuclides. The aim was to provide standardized data for the production of radionuclides for therapeutic purposes, embracing current and possible future needs. Experimental data compilations, theoretical calculations and evaluations were carried out for each of the reactions. The recommendations for production of both established and emerging radionuclides are discussed, and the analysis carried out to produce the recommended data is also presented. The improved quality of the nuclear data will make reactor and accelerator production of therapeutic radionuclides much more efficient, and should also enhance their quality through improved purity of the product. The current publication includes newly evaluated data for both reactor and accelerator production of therapeutic radionuclides based on more than 50 different production reactions.

(382 pp., 88 figs; 2012) • ISBN 978-92-0-115010-3 •
STI/DOC/010/473 • €75.00

Radiolabelled Autologous Cells: Methods and Standardization for Clinical Use

IAEA Human Health Series No. 5

This publication serves as a useful resource for nuclear medicine physicians, radiologists, radiopharmacists, pharmacologists and other researchers engaged with radiolabelling of autologous products for clinical application. It provides practical guidelines towards clinical work with radiolabelled autologous products and aims to

streamline the variety of strategies that have evolved, for example, in the handling of radiolabelled red and white blood cells. The publication highlights the importance of the quality of radiolabelling services, provides advice on safety issues, and also addresses the use of other radiolabelled autologous products and their translation into the clinical environment.

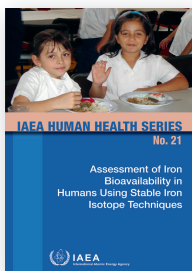
(124 pp., 17 figs; 2014) • ISBN 978-92-0-101310-1 •
STI/PUB/1437 • €55.00

Yttrium-90 and Rhenium-188 Radiopharmaceuticals for Radionuclide Therapy

**IAEA Radioisotopes and Radiopharmaceuticals
Series No. 5**

This publication presents the findings of an IAEA coordinated research project (CRP) on the development of therapeutic radiopharmaceuticals based on ^{188}Re and ^{90}Y for radionuclide therapy. It is a comprehensive summary of the activities carried out within the CRP and highlights the main achievements. The CRP focused on the validation of quality control methods for ^{188}Re and ^{90}Y generator eluates and, specifically, on optimization of separation procedures of ^{90}Y from the parent radionuclide ^{90}Sr . A parallel programme was also undertaken to investigate the design of new target specific therapeutic radiopharmaceuticals prepared through the labelling of relevant biomolecules with ^{188}Re and ^{90}Y . The publication illustrates the results of these studies with the aim of supporting and further accelerating the development of clinically useful ^{90}Y and ^{188}Re radiopharmaceuticals in Member States.

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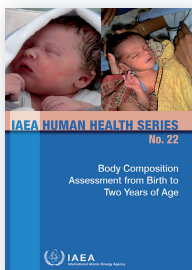


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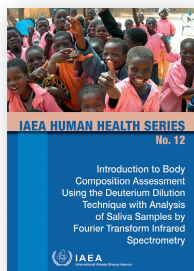
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This publication was developed by an international group of experts as an integral part of the IAEA's efforts to contribute to the transfer of technology and capacity building in this field in order to assist Member States in their efforts to improve the nutrition and health of the most vulnerable population groups, infants and young children. The book provides practical information on the assessment of body composition from birth up to two years of age and is intended for nutritionists, paediatricians and other health professionals. The body composition assessment techniques included in this publication were selected as methodologies with the highest potential for standardization globally — based on considerations such as access to equipment, cost and the training needs of staff — and include stable isotope dilution for total body water

assessment, as well as dual energy X ray absorptiometry and air displacement plethysmography. In addition, the book highlights the importance of standardization of anthropometric measurements as basic measurements of body weight and length are crucial for accurate body composition assessment.

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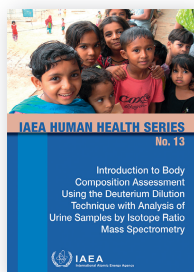
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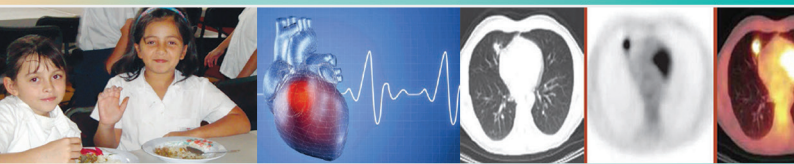
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