Clinical Audit Practice and Process

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World Health Organization - A quality health service

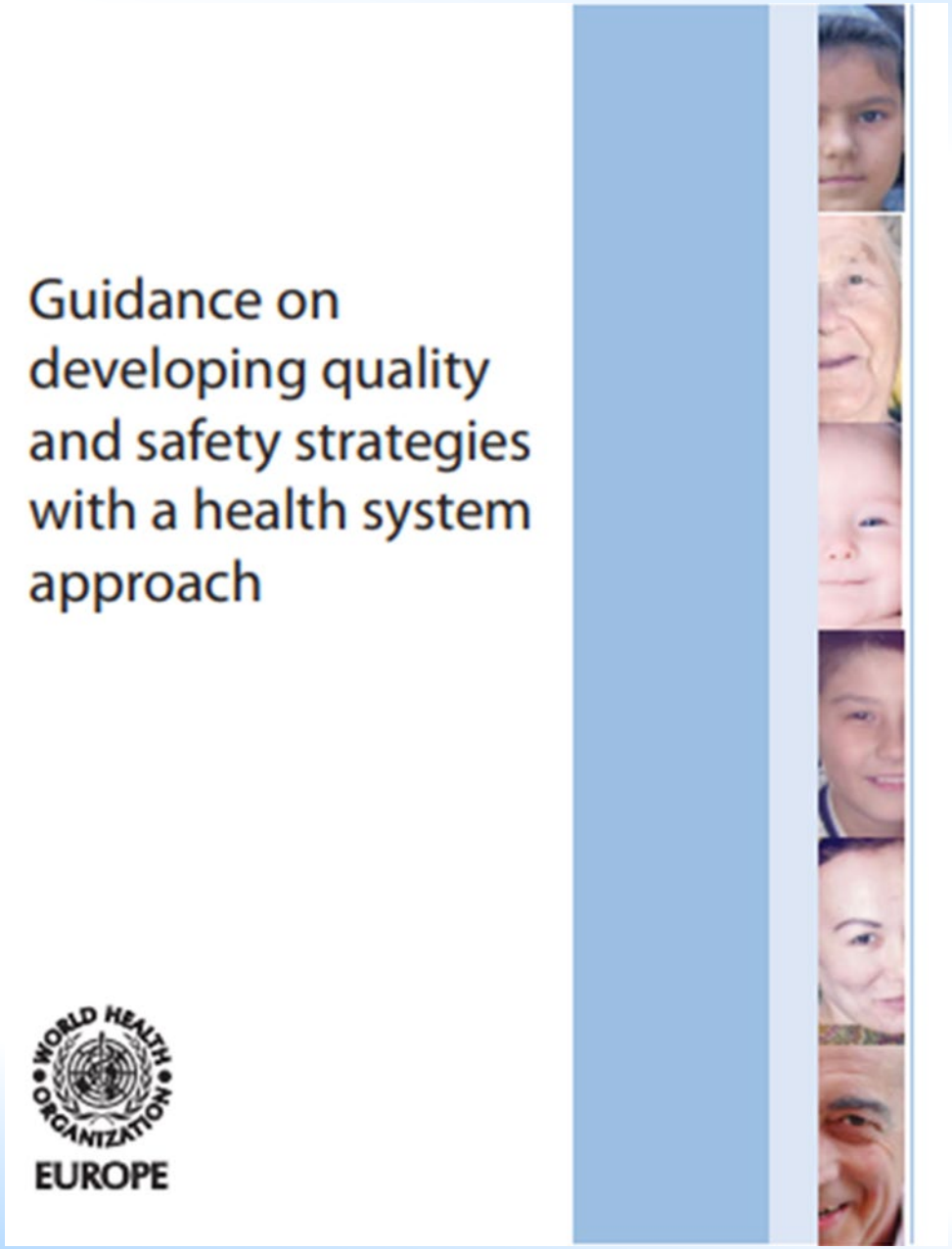
"Is one which organizes resources in the most effective way to meet the health needs of those most in need, for prevention and care, safely, without waste and within higher level requirements"

(Øvretveit 1992)

Health care standards improve globally

Optimal service requires effective quality management

Aims at defining, measuring and setting quality standards, and overcoming the associated challenges that include rising costs and skills shortages



Quality is resulting from

- The way resources are used
- Not from how many resources are available

The WHO definition recognizes the need for safe care, higher-level laws and human rights

https://www.euro.who.int/__data/assets/pdf_file/0011/96473/E91317.pdf

Perspectives of heath care quality

The service provides patients with what they want and expect, during and after the service

Patient quality

The service follows procedures and methods which are thought to be most effective in meeting patient's clinical needs, as assessed by health professionals.

Professional quality

The service uses available resources in the best way to achieve patient and professional quality, without waste and within higher level requirements

Management quality

WHO - Guidance on developing quality and safety strategies within a health system approach

Six areas or dimensions of quality improvement

Effective delivering health care that is adherent to an evidence base and results in improved health outcomes for individuals and communities, based on need

Efficient delivering health care in a manner which maximizes resource use and avoids waste

Accessible delivering health care that is timely, geographically reasonable, and provided in a setting where skills and resources are appropriate to medical need

Acceptable/patient-centred delivering health care which takes into account the preferences and aspirations of individual service users and the cultures of their communities

Equitable delivering health care which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location, or socioeconomic status

Safe delivering health care which minimizes risks and harm to service users

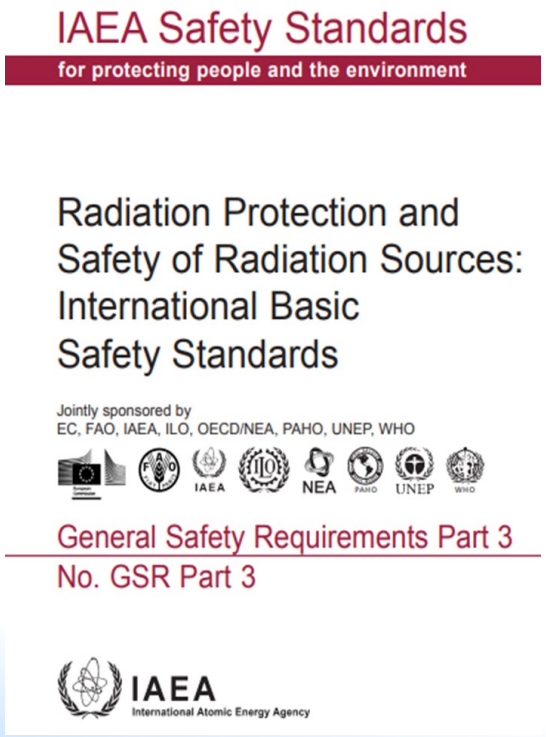
IAEA statutory role

To establish or adopt standards of safety for protection of health and minimization of danger to life and to provide for the application of these standards

Open and transparent process for gathering, integrating and sharing the knowledge and experience gained from the use of technologies and from the application of the Safety Standards themselves

Safety

Requirements



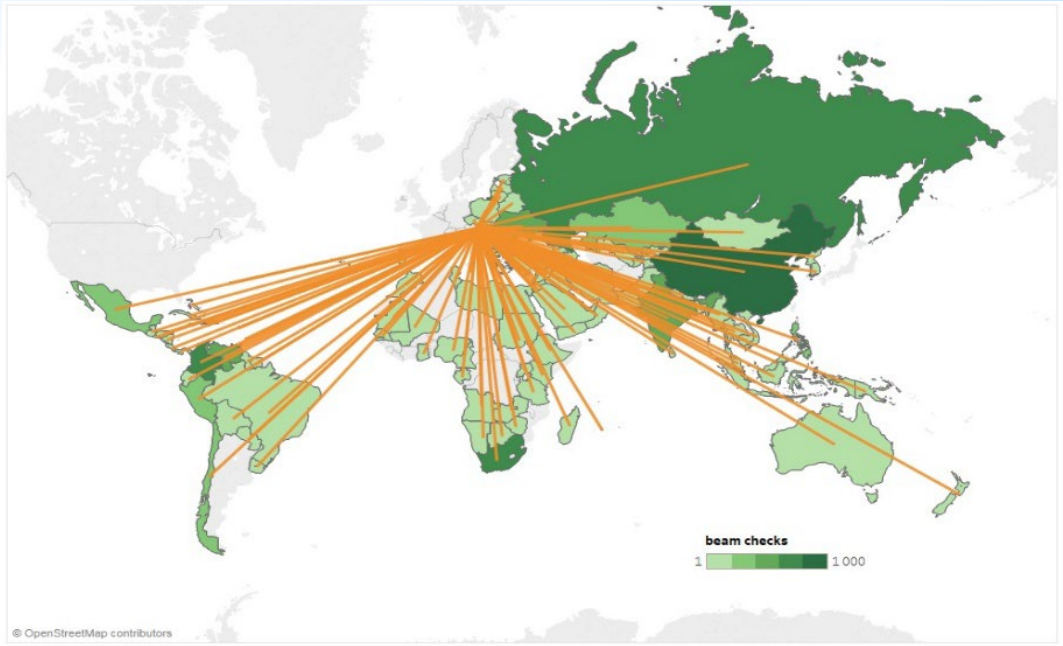
IAEA Safety Standards

- The IAEA recognized the need to audit medical radiation technology (diagnostics & therapy)
- The foundation is the IAEA International Basic Safety Standards. First edition in 2003, revision 2014
- EC Directive 97/43/Euratom: EU countries are recommended to implement clinical audits
- IAEA methodology for comprehensive clinical audit has been developed and published for radiotherapy, nuclear medicine and diagnostic radiology

Dose Audits for Radiotherapy Centres

Dose audit service

- 50 years of the IAEA/WHO postal dose audits (1969)
- >13000 beam checks
- ~2300 radiotherapy centres in 133 Member States



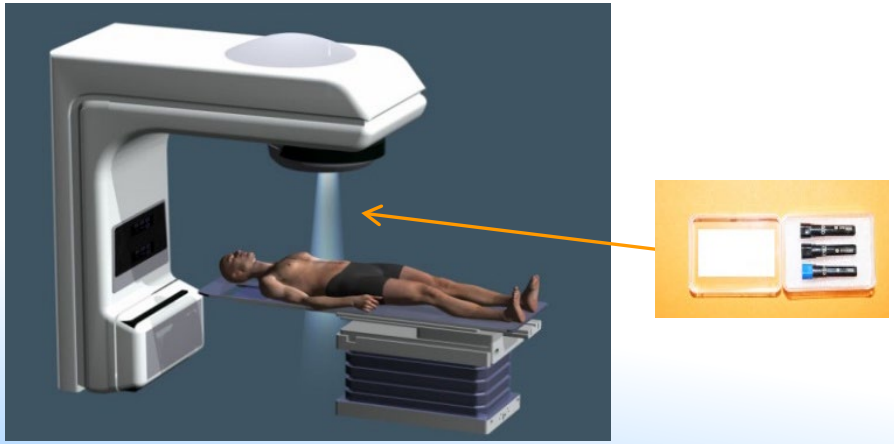
Support to Dosimetry Audit Networks

Since 1981 support to over 25 DANs through blind dose comparisons

Audit of radiation protection standardization in SSDLs

How is the audit carried out?

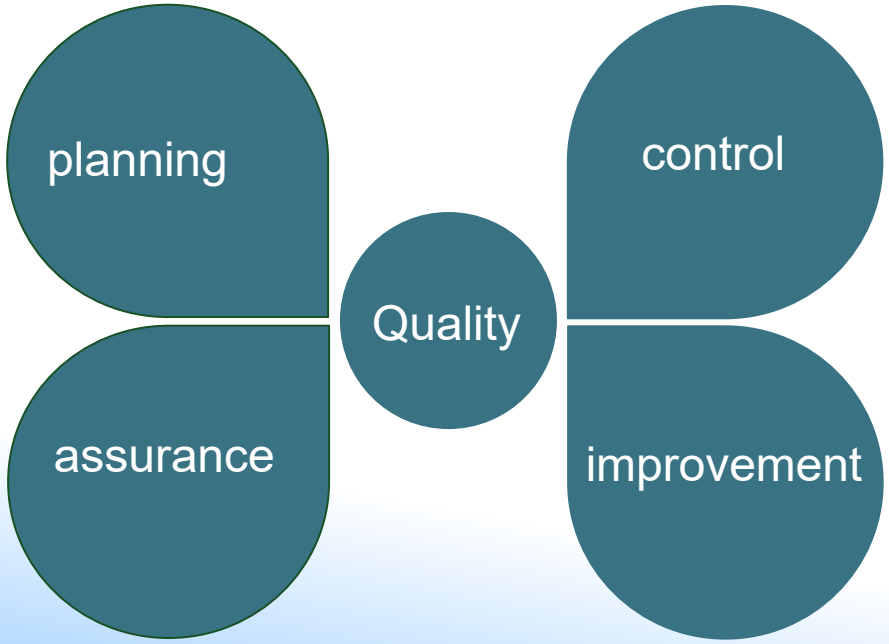
Small dosimeters are sent to radiotherapy centres for irradiation to verify the beam output used for patients' treatments

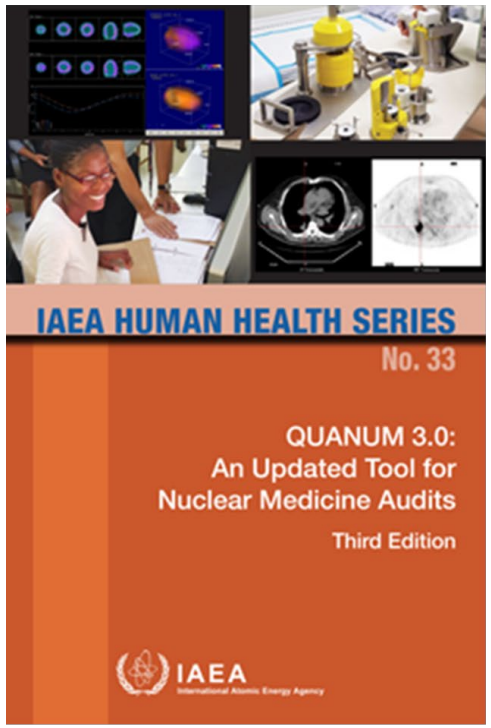


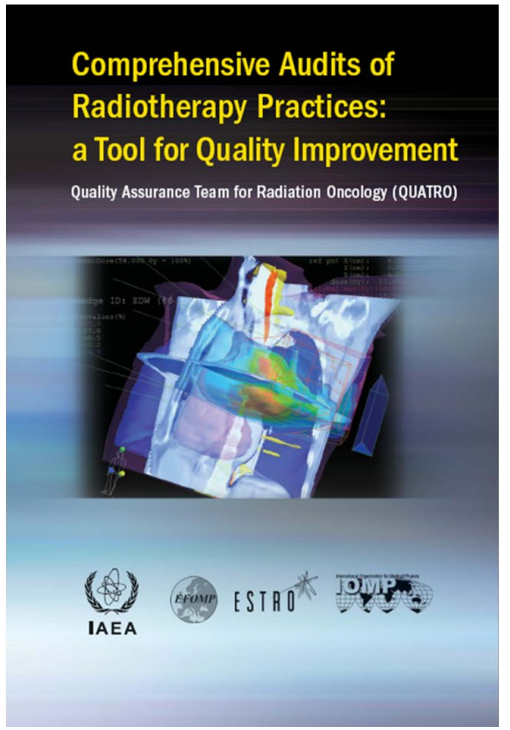
IAEA quality management programmes

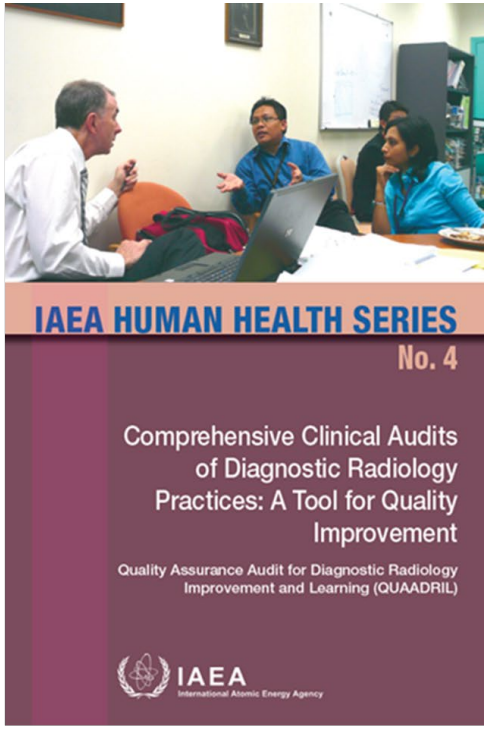
Quality Management includes all the activities that organizations use to direct, control, and coordinate quality. These activities include formulating a quality policy and setting quality objectives

QM includes:

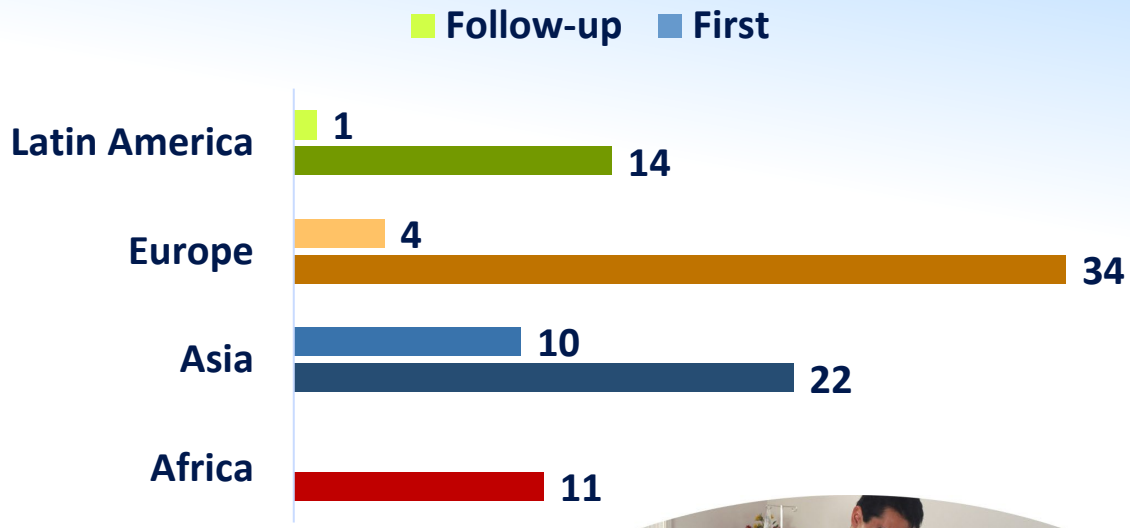






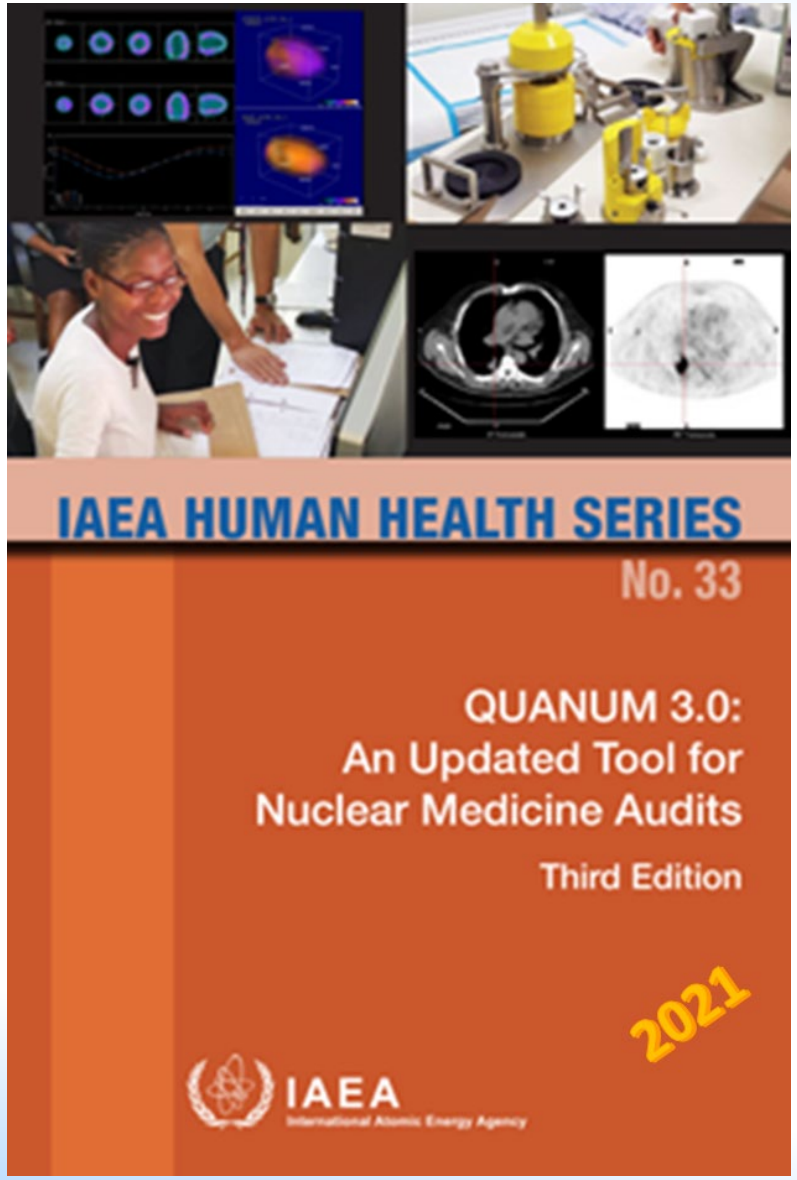


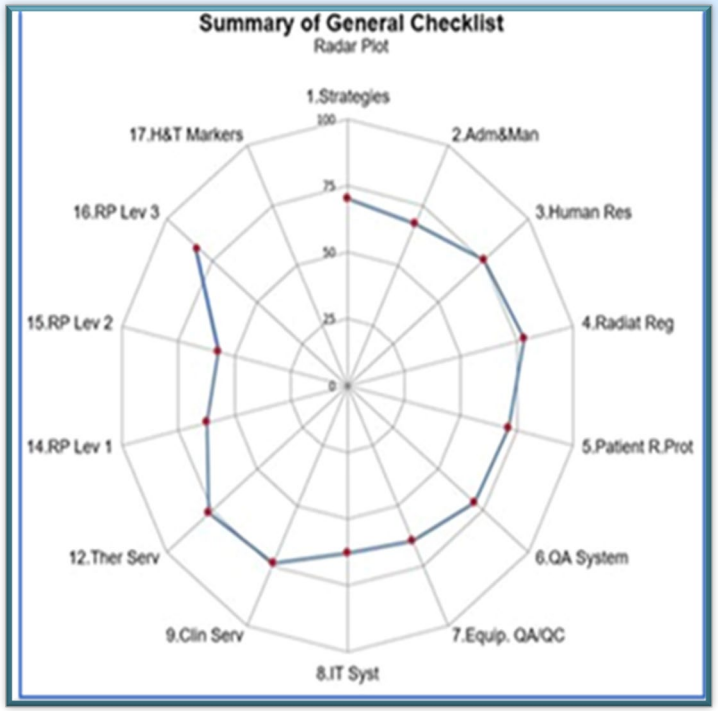
Comprehensive radiotherapy audit: QUATRO



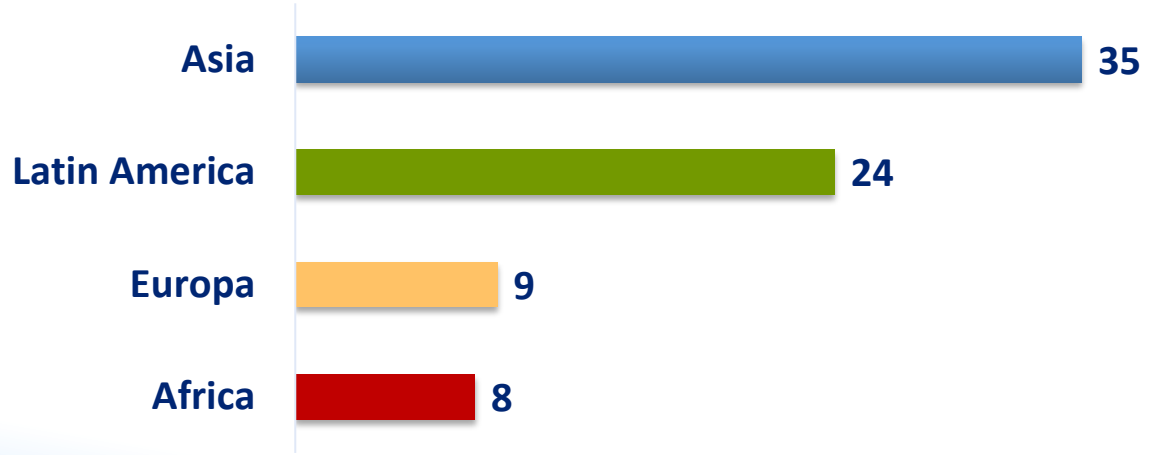
- 2005
- 96 audits
- 80 countries

Ongoing efforts by IAEA - QUANUM



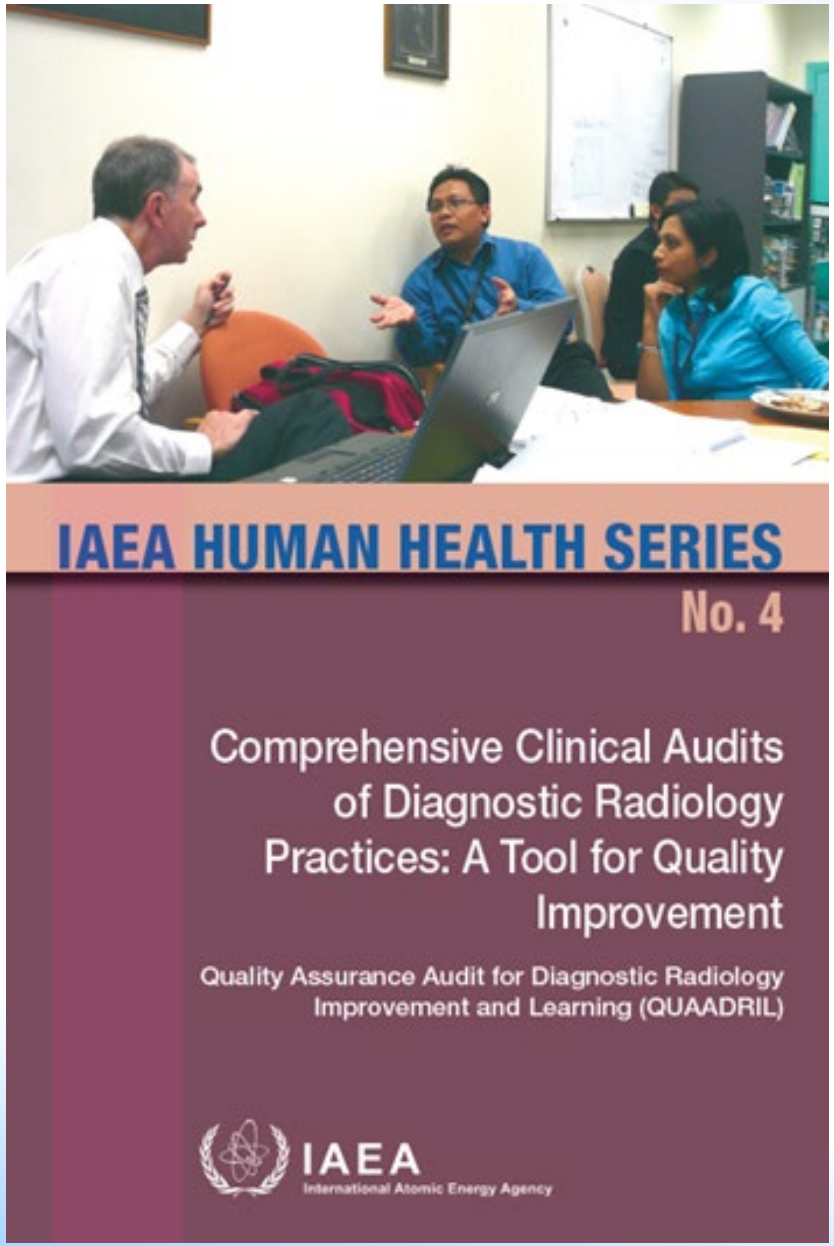


- Introduced 2007
- 76 audits
- 46 countries
- 56 auditors
- 14 teams
- 25 workshops
- 540 trainees



https://www.iaea.org/publications/13619_web.pdf

QUAADRIL



Bosnia and Herzegovina
Belgium
Israel
Thailand
Malaysia
UAE

- Comprehensive checklists and guidance on best practices
- Evaluates elements of diagnostic radiology practice: staff, equipment, infrastructure, procedures, safety, overall facility performance, and more
- Can be used for self-assessment as well as for internal and external audits
- The audit team is comprised by a radiologist, a diagnostic radiology medical physicist, and a radiographer

IAEA's Vision

Quality Management in Radiation Medicine

- Provide best possible **service** to patients
- At the lowest possible **risk**
- At adequate **costs** for patients and community, including the environment
- Improve **satisfaction** of customers and providers

The audit cycle

Regular audits help to achieve continuous improvement of the quality and safety of services

The steps typically involved in an audit cycle are

Thank you for attention!