

*2nd Regional IRPA WHO IOMP Workshop on
Radiological Protection Culture in Medicine*



Justification and Radiological Protection Culture in Medicine The point of view of Family Doctors

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Academies and Academic Associations
of General Practitioners/Family Physicians
(WONCA)

Geneva 1st Dec 2015

World Organization of Family Doctors

The Mission of WONCA is to improve the quality of life of the peoples of the world through defining and promoting its values, including respect for universal human rights and including gender equity, and by fostering high standards of care in general practice/family medicine



118 Member Organizations
131 countries
500,000 family doctors
90 per cent of the world's population

Euratom BSS: Definition of Justification

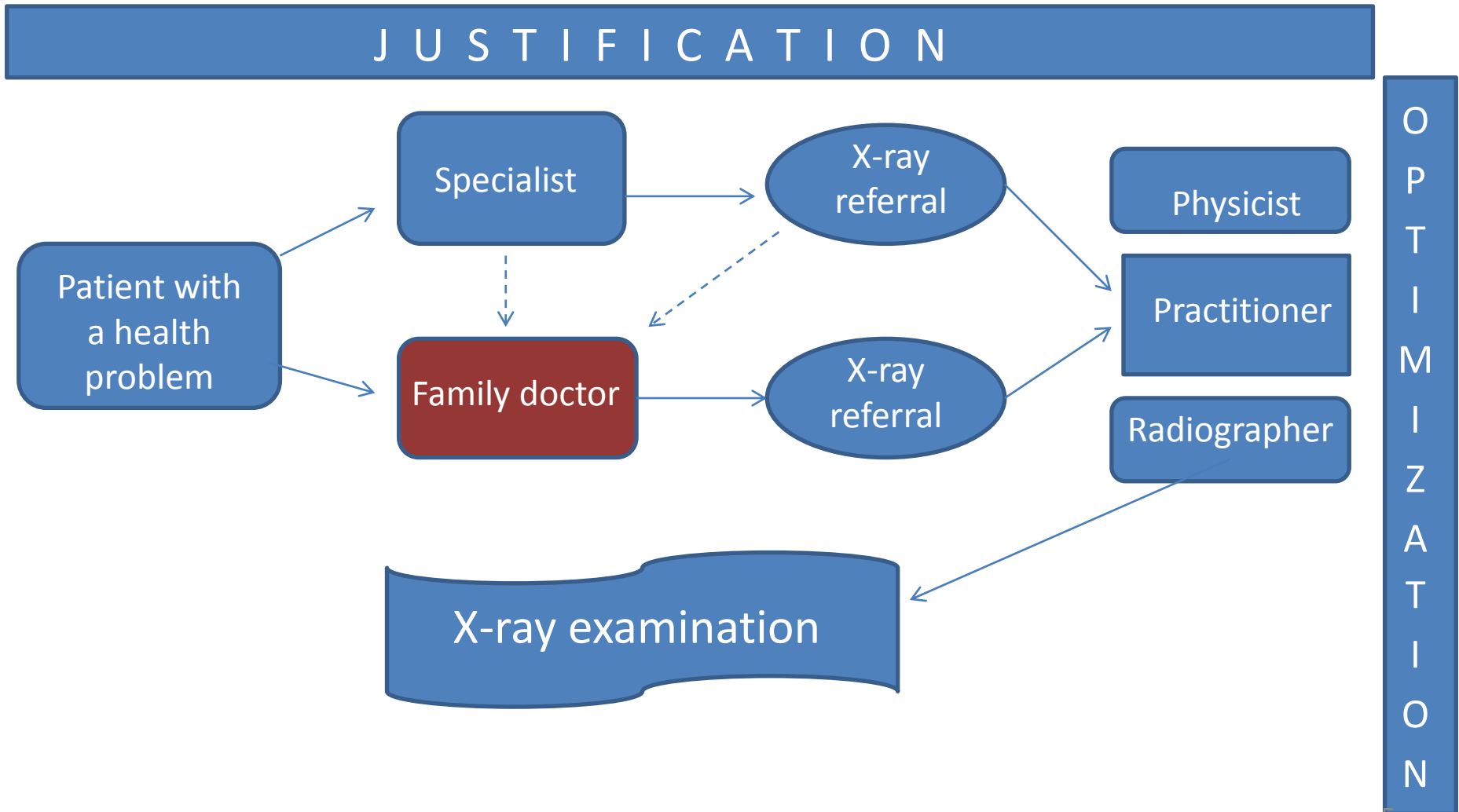
“Medical exposure shall show a sufficient net benefit, weighing the total potential diagnostic or therapeutic benefits it produces, including the direct benefits to health of an individual and the benefits to society, against the individual detriment that the exposure might cause, taking into account the efficacy, benefits and risks of available alternative techniques having the same objective but involving no or less exposure to ionising radiation.”

*“Member states shall ensure that:
all individual medical exposures are justified in advance”*

Definition of Justification...

- considers:
 - > the benefit/risk ratio of an x-ray examination for the individual patient
 - > its irreplaceability
- relies on professional evaluation of comprehensive patient information, including previous relevant clinical, imaging, laboratory, and treatment data. The decision concerning a radiological procedure usually requires a clinical assessment, a physical examination, a consideration of patient expectations, taking into account the psycho-social context.
- Considers the benefits to the community

A x-ray examination process





EUROPE

*World Organization of National Colleges, Academies and Academic Associations
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THE EUROPEAN DEFINITION OF GENERAL PRACTICE / FAMILY MEDICINE

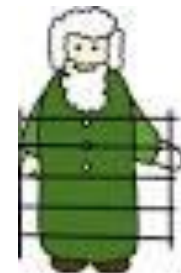
**WONCA EUROPE
2002**

Characteristics of General Practice

FDs play an advocacy role *"protecting patients from the harm which may ensue through unnecessary screening, testing, and treatment"* and have a specific responsibility for the health of the community.



Besides, in many countries, FDs are the gate keepers of the National Health Service, and request all clinical tests for outpatients.



FDs and the strategic approach to radiation risk



What FDs can do

Risk sharing

- explaining to the patient the reasons motivating the referral and potential risks
- rather than just collecting an informed consent, involving the patient in the decision-making process



R

P

C

M

Low awareness regarding radiological risks

Several international studies have shown a low awareness not only among patients but also among referrers.

In a Norwegian survey, doctors got an average score of 30,4% (DS=8,5), with a maximum of 42,8%, of correct answers to a questionnaire concerning knowledge of radiation risks *

* Borgen L., Strandén E., Espeland A., Clinicians' justification of imaging: do radiation issues play a role?, Insights Imaging (2010) 1:193–200 DOI 10.1007/s13244-010-0029-4

Valutazione dei bisogni formativi dei medici prescrittori in merito al rischio radiologico. *Survey*

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Performed by the Network of Italian Scientific Associations Members of WONCA

Educational needs of doctors concerning radiation risks. Italian survey 2011*

- The level of knowledge of referrers (FDs, Pediatricians and Specialists) concerning radiation risks is low in general
- The educational needs regard:
 - delivered doses in the medical tests
 - knowledge on biologic harm by x-rays
 - imaging guidelines
- Doctors usually know the justification principle but need more tools to apply it

Doctors' Education for RPCM

- Promoting radiological protection culture through education of doctors on radiation safety, including basic medical education, specialty training and Continuing Medical Education (CME).
- Education should:
 - include knowledge on ionizing radiation sources and related risks, and use of clinical imaging guidelines
 - develop communication skills and competences to inform patients in an understandable way about risks and advantages of performing an x-ray procedure, and to give to radiological practitioners relevant clinical information.

WONCA commitments

- To cooperate with other stakeholders in stimulating national health authorities to set up regulations, which define responsibilities and procedures to make the justification process clear and traceable
- To cooperate with radiology associations, and take part in interdisciplinary panels, to set or adapt Clinical Imaging Guidelines (CIG) at international and local level
- To cooperate with other stakeholders for an effective strategy to spread the settled guidelines, implementing them in Clinical Decision Support (CDS) systems and including CDS in the databases used by family doctors

WONCA suggestions

- To incorporate in regulations the need to include in every report of procedures that require IR, the administered dose
- To include into the discharge letters from hospital the overall dose of IR administered
- To include data concerning previous examinations and IR exposure of each patient in the Patients' File of the Health Service, where it is available
- To include into the FDs' databases the expected administered dose of each examination and an automatic computation of the exposure of the patient in the last years, to help the doctor in applying the justification principle.

WONCA commitments

WONCA considers an important issue the impact of exposure to radiation through medical imaging and advocates for preventing the risks of unnecessary exposure due to inappropriate or excessive investigations.

WONCA intends to pursue the collaboration with WHO and other international organizations to increase Radiological Protection Culture in Medicine



5 Key issues for establishing and maintaining RPCM	Comments
1. Promoting education of health professionals on radiation protection, including basic medical education, specialty training and Continuing Medical Education (CME)	Appropriate specific education is needed because of the poor awareness of doctors on medical radiation risks in all the world
2. Including in every report of procedures that require IR, the administered dose	Information increases awareness of doctors and allows to inform patients on the balance risks/ benefits in an understandable way
3. Including data concerning previous examinations, and IR exposure, of each patient in the Patients' File of the Health Service, where it is available	This allows doctors to have, and give to the radiological practitioner, information concerning his/her radiological history
4. Risk sharing with the patient	Involving patients in the decision making process is a great opportunity to spread RPCM among patients
5. Implementing Clinical Imaging Guidelines in Clinical Decision Support system (CDSs) available for all doctors	CIG increase: -awareness concerning appropriateness -radiation protection culture among doctors