The perspective of the medical professional associations

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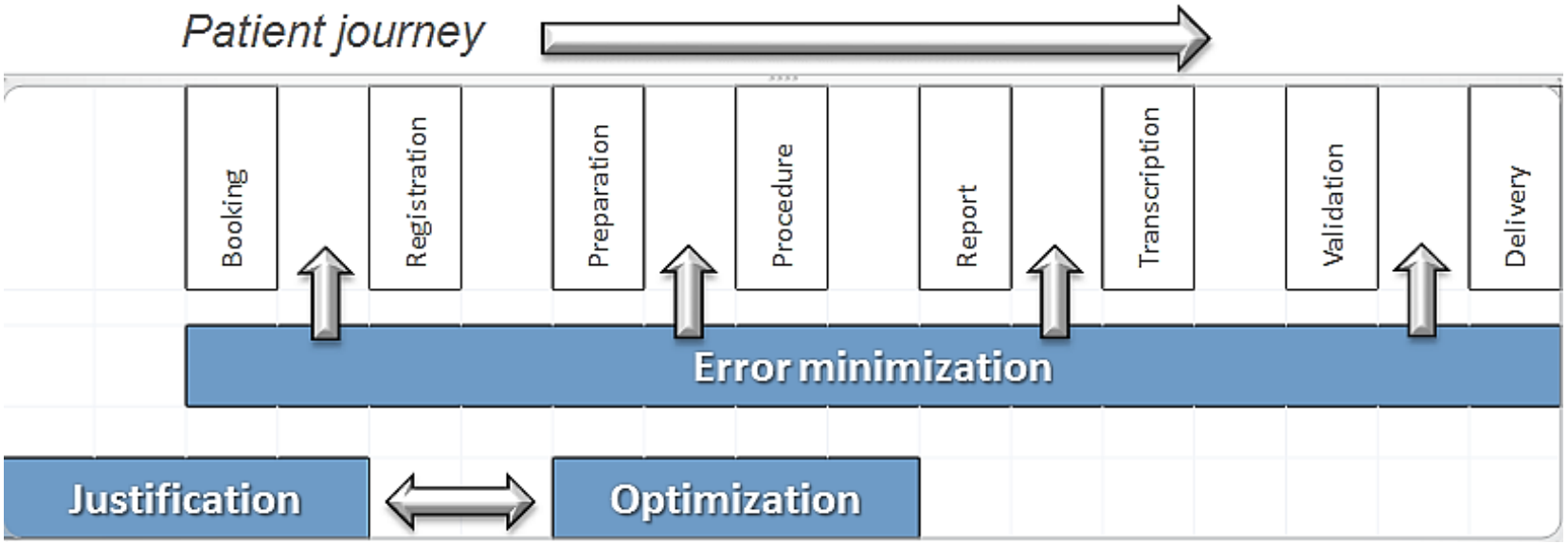
The ISR welcomes an opportunity to **contribute to the strengthening of occupational radiation protection in medicine** by providing feedback to DRAFT recommendations and **collaborating** with all stakeholders.

Professional organizations and radiologists are committed to the safe use of radiation in medicine **to protect patients and workers**.



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Daily working procedures: the practical approach

1. in X-ray imaging, professional exposure is most significant in **fluoroscopy-guided and CT-guided intervention**
2. in this situation, better **patient protection** usually equals **better occupational protection**
3. the three principles governing occupational protection are: short **exposure time**, maximal **distance**, and adequate **shielding**
4. to limit scatter radiation, the **personnel's position** should be opposite to the tube (on the detector side), and the **tube** should be **under the table**
5. **shielding** includes the apron (0.25mm Pb with overlap anteriorly), lead glasses, thyroid shield, table curtains, lateral patient shields, ceiling-suspended screens and/or mobile floor shielding
6. using these measures, **effective dose** can be kept well below legal limits whereas special attention is required to limit the dose to the **lenses** of the eyes and to minimize direct exposure of the interventionalist's **hands**

Daily working procedures: the practical approach

7. **personal dosimetry** in intervention requires **two dosimeters** (1 below the apron at chest level, 1 above the apron at neck or eye level). In case of direct exposure of the hand an additional finger ring dosimeter is needed. Real time dosimetry for immediate feedback and education.
8. occupational radiation protection in medicine heavily depends on both **education and practical training**
9. standing rules guarantee that **pregnant personnel** will not reach the legal limit of 1 mSv at the uterus during the rest of pregnancy.

Summary

To strengthen occupational radiation protection in the next decade, a comprehensive approach is required by: promoting **awareness**, conducting **research**, providing **training**, strengthening **infrastructure** (access to and proper use of protective devices), implementing effective **policies** (operator certification), impact **evaluation** and on-going **improvement.**
This approach is fully in line with the **Bonn Call for Action recommendations**

CONCLUSIONS: REQUIREMENTS FOR IMPROVING MEDICAL OCCUPATIONAL RADIATION PROTECTION

Strengthening of occupational radiation protection (ORP) in the **health care** system and radiology facilities is a **team event** and **responsibility**

Radiologists play leading and decision-making roles in radiology facilities

Good teamwork and an **integrated framework** (work plan) improve outcome

The ISR and radiologists worldwide are **committed in improvements** of occupational radiation protection in the next decade and beyond

As a key stakeholder, the **ISR looks forward to collaborating with the IAEA and other stakeholders**, contributing to the development and facilitating the implementation of system-wide ORP recommendations and actions