

GREAT RESEARCH NEEDS
A GREAT AUDIENCE.



RSNA® 2021
REDEFINING RADIOLOGY
November 28 to December 2

Measuring Improvement in a Multinational Healthcare Organization

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Purpose

- To present the **impact of the introduction of Group organizational clinical standards** in a multinational healthcare organisation **in the improvement of patient safety** through clinical audit
- To **assess** whether actions taken have had **tangible benefits** and as such, retrospective reviews and assessments are **embedded as standard approaches**



Material & Methods

- A suite of clinical safety standards was introduced at Group level in 2018 to harmonise approaches and embed best practice, moving away from the prior approach where standards were developed at individual country business level based on local requirements
- At the time of implementation, audits were undertaken to benchmark initial compliance to the new higher standards such that any subsequent progress could be analysed

2018 Baseline Audit

- 187 Diagnostic Imaging Centres
- 11 European Countries
 - Croatia (HR)
 - Czech Republic (CZ)
 - Greece (GR)
 - Hungary (HU)
 - Ireland (IR)
 - Italy (IT)
 - Lithuania (LT)
 - Poland (PL)
 - Portugal (PT)
 - Romania (RO)
 - Spain (ES)

Self-Assessment Questionnaires

39 questions based on

- Comprehensive Clinical Audits of Radiology Practices, IAEA
- Esperanto, ESR
- ESR Clinical Standards & Audit Templates

Areas audited

- Incident Management
- Justification of Imaging Examinations using Ionising Radiation
- Contrast Media Management
- MR Safety



Material & Methods

- The first **comparative survey** was undertaken between October to December 2020
- The **same self-assessment questionnaires** were digitally distributed to assess **compliance** with a **95% standard**
- **Results were compared to those collected in 2018** to evaluate the level of improvement
 - Analysis per country / between countries
 - Analysis per area and overall compliance
 - Comparison with 2018 results to measure improvement

Form
 Clinical
 P-CLN-001-06 Rev: 04
 Page 1 of 2



**CLINICAL AUDIT
RADIOLOGY DEPARTMENTS**

Scope
To improve the quality of patient care, experience and outcomes through formal review of systems and pathways against defined standards and to implement change based on the results.

Country: _____ Centre: _____
Date: _____

Please select the type of modalities in your centre:

Radiography
 Mammography
 CPG
 DEXA
 CT
 MRI
 Interventional Radiology

YES
 NO

Is your centre participating in the Dose Excellence Project?
 YES
 NO

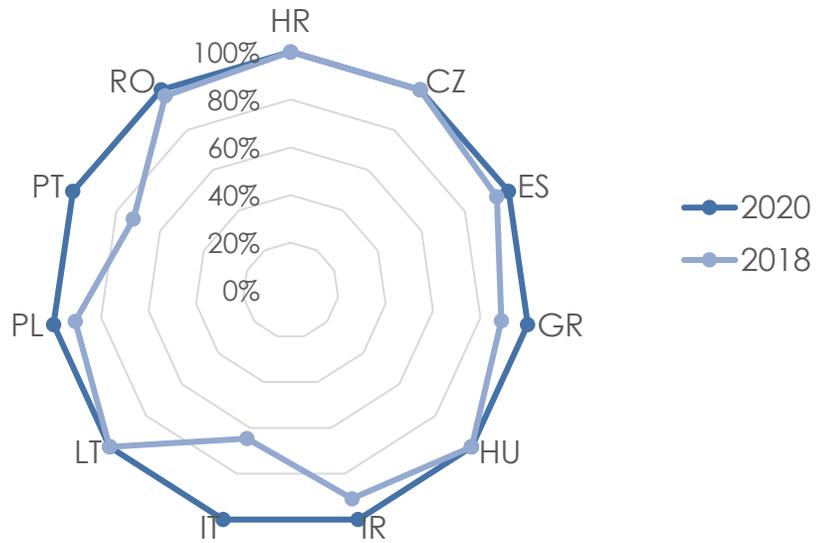
Is your centre participating in the MR Excellence Project?
 YES
 NO

1. Is all equipment using ionising radiation appropriately licensed? Reference P-CLN-001.	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
2. What is the frequency of the ionising radiation license renewal?			<input type="checkbox"/> N/A
3. Does the centre have a Medical Physicist? If yes <input type="checkbox"/> Personnel <input type="checkbox"/> Consultant/Contractor	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
4. Does the centre have access to Medical Physicist advice (e.g. Chief Medical Physicist)?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
5. Is the centre overseen by a Radiation Safety Committee?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
6. Does the centre have a Quality Control Program in place? Reference P-CLN-001 and implementation of local SOP for Quality Assurance Program.	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
7. Does the centre perform risk assessment related to radiation protection? Reference P-CLN-001.	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
8. Is there a local Radiation Protection program?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
9. Are Radiation Protection Apparel (RPA) e.g. lead aprons, collars etc. available?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
10. Is there a procedure for labelling, inspection, evaluation, cleaning, storing and disposing Radiation Protection Apparel (RPA)? Reference P-CLN-001.	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
11. Are there radiation protection signs in the designated areas? Reference P-CLN-001.	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
12. Are centre personnel appropriately monitored for radiation exposure? Reference P-CLN-001.	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
13. Is there a process for pregnant personnel? Reference P-CLN-003.	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
14. Is there an incident reporting system? Reference P-CLN-008.	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
15. Is there an internal process for personnel to provide positive feedback to their peers? Reference P-CLN-021.	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
16. Is there a process in place that clearly defines who has the authority to request imaging investigations? Reference P-CLN-014.	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
17. Is there a record of referers with authority to request imaging investigations? Reference P-CLN-014.	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
18. Is there a justification process for examinations using ionising radiation? Reference P-CLN-006.	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A

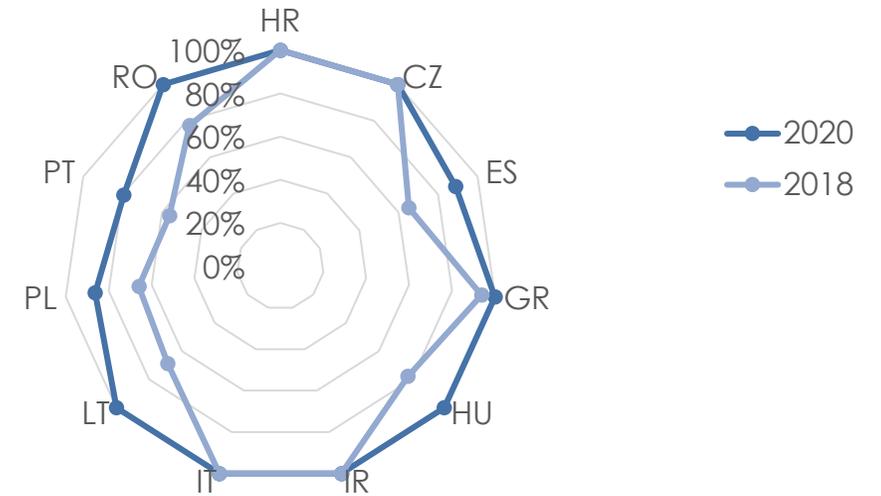
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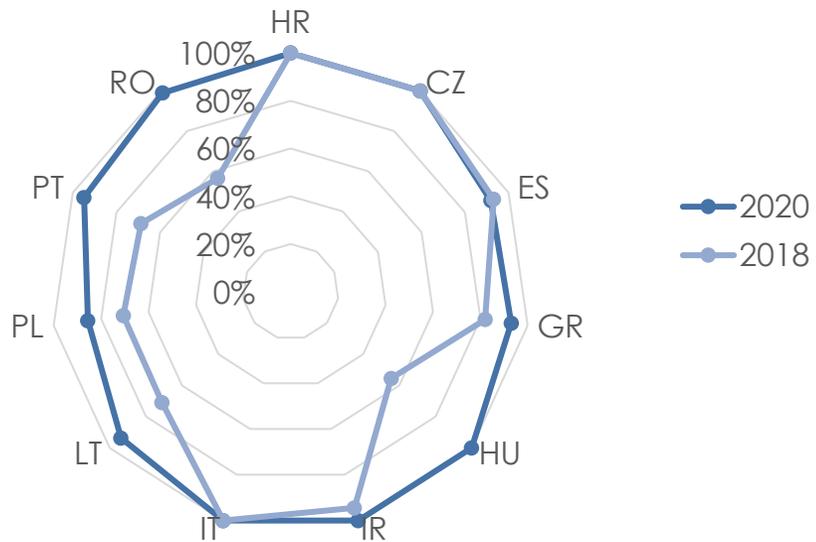
Incident reporting



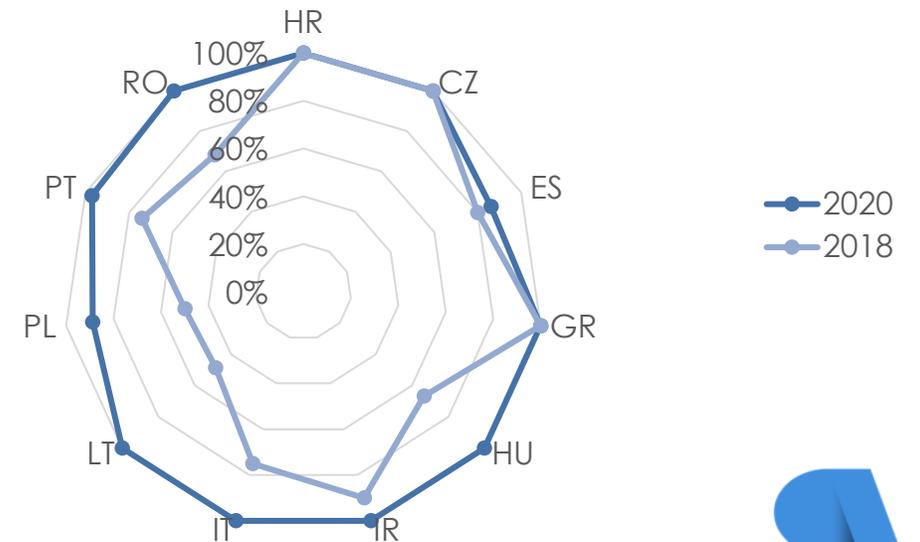
Justification of Imaging Examinations with Ionising Radiation



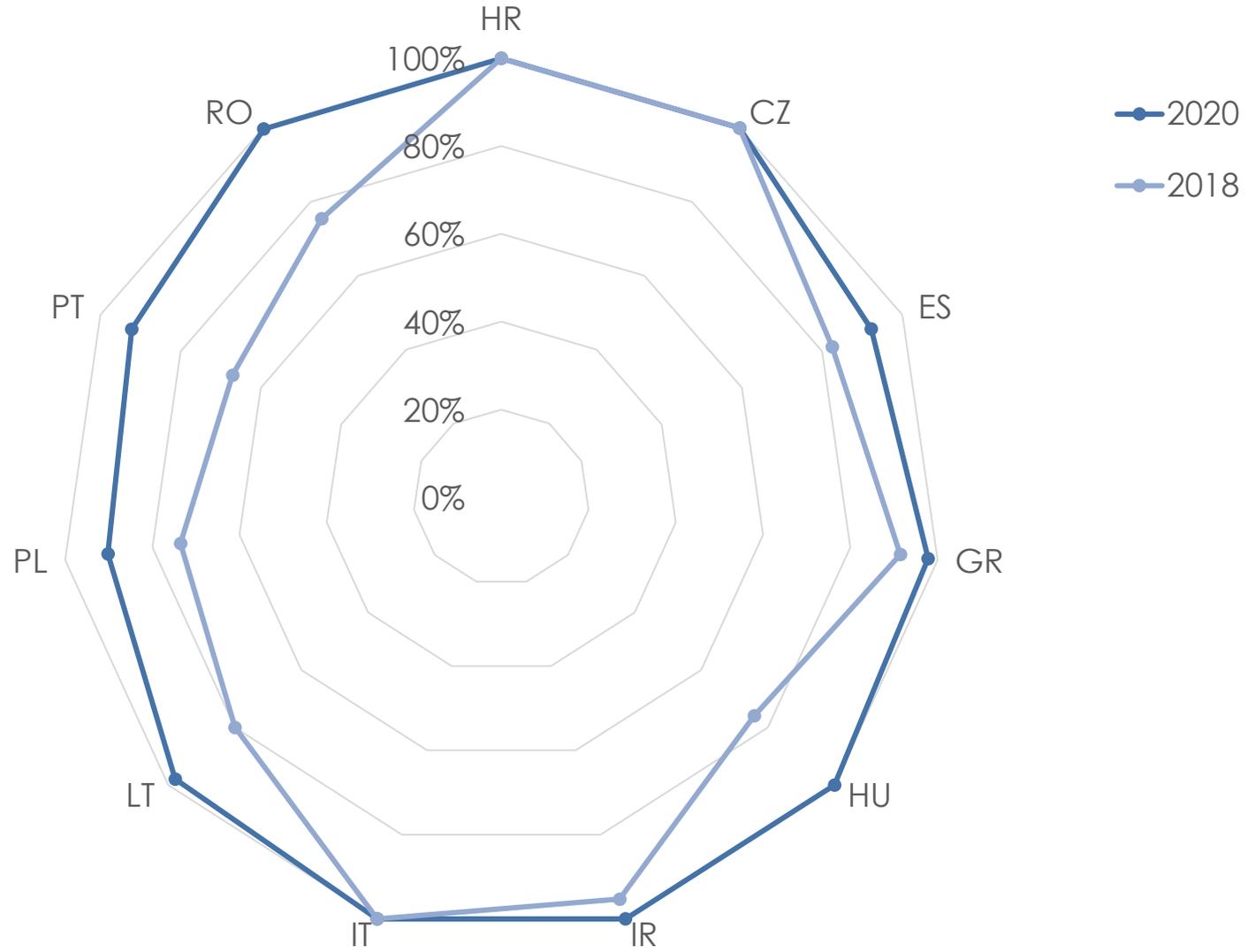
Contrast Media Management



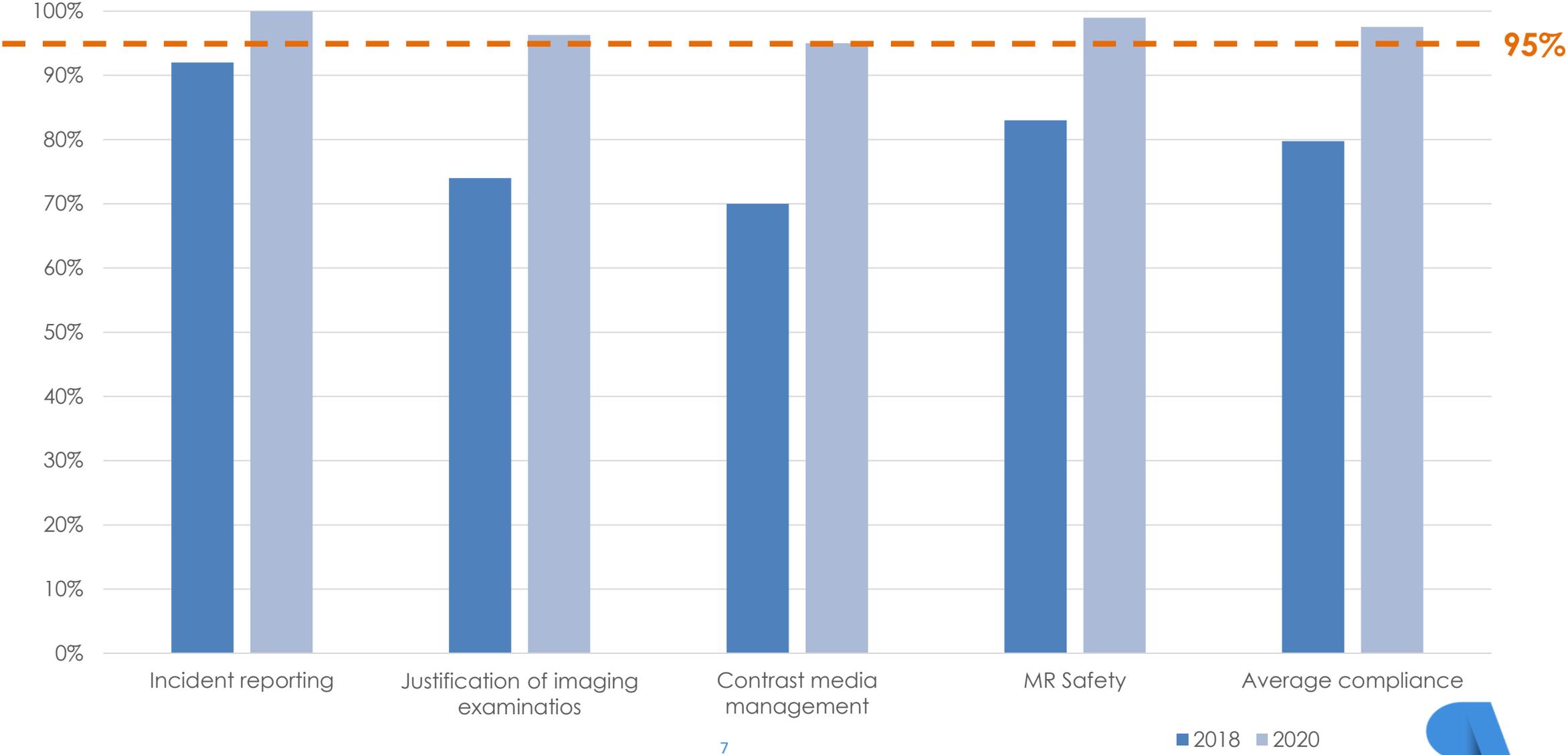
MR Safety Compliance



Overall Compliance per Country



Overall compliance per area audited for 187 centers in 11 countries



Results: Comparative Study



Conclusion

- The comparative exercise demonstrated **improved compliance** to the enhanced best practice organisational standards introduced in 2018
- Clinical practice standards combined with
 - team work to analyse incidents
 - continuous communication
 - targeted awareness campaigns
 - personnel education and trainingwork as a key driver of **risk mitigation** in clinical activities in diagnostic imaging centres

