

# Evaluation of MRI images and reports in an Accreditation Program

W5B-QI-3



# INTRODUCTION

- Since 2015, the Brazilian College of Radiology (CBR) promotes an Accreditation Program in Diagnostic Imaging (PADI) that verifies 201 standard criteria, grouped into five principles:
- 1- Governance and administrative/financial management
- 2- Quality management
- 3- Service provisioning
- 4- Diagnostic support services
- 5- Security, Radiation and Infrastructure
- Before entering into the assessment of the aforementioned principles, services must undergo a technical assessment of the quality of images and reports anonymously.

# INTRODUCTION

- As far as we know, this is the only accreditation program, certified by ISQua (International Society for Quality in Health Care) that performs this assessment.
- The objective of the study was to verify the performance of applicant institutions in the magnetic resonance images and their reports during the year 2022, as a requisite for the process of accreditation.

# METHODS

- During the year 2022, 72 exams from 6 different radiologic institutions were evaluated. Thirteen criteria were evaluated for each exam, where each criterion was classified as "Adequate" or "Inadequate", regarding the quality of the images, congruence of laterality and efficacy of the report.
- The next table shows all the criteria that serve as a guide for the examiner. The “pass” of “fail” of the exam depends on the number and importance of the inadequacies.

# METHODS

Topic	Criteria audited
Quality	1. Are the minimum number of sequences and their respective protocols correct?
Quality	2. Do the images presented have adequate tissue contrast?
Quality	3. In case of studies with IV contrast, is the contrast of the structures and their respective phases (arterial, portal and balance) adequate?
Quality	4. Is the anatomical coverage correct?
Quality	5. Are image thickness and spatial resolution adequate (equal to or better than CBR minimum guidelines)?
Quality	6. Is the pathology well demonstrated in the images sent?
Report	7. Does the title is compatible with the exam?
Report	8. In the case of exams with contrast, is information about administration included in the exam methodology?
Report	9. Are the spelling and grammar satisfactory?
Report	10. Is the content of the medical report adequate?
Report	11. Was the pathology(s) well described in the report?
Laterality	12. Is the side correctly identified in the images?
Laterality	13. Laterality is correctly identified in the report

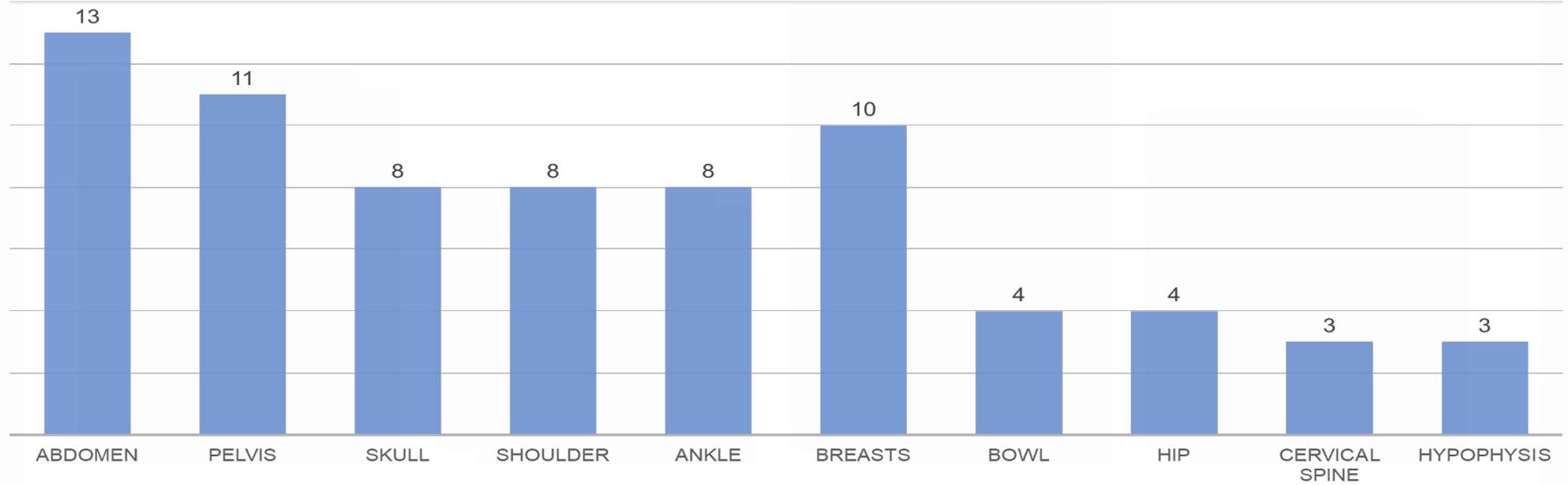


# RESULTS

- Of the 72 exams evaluated, 852 criteria were evaluated, where 158 flaws were found, that is, 19% of the evaluated criteria were considered INADEQUATE. The 13 criteria evaluated are distributed across 3 themes: Quality, Reporting and Laterality.
- In the “Quality” topic, the criterion with the highest number of inadequacies was “Is the pathology well demonstrated in the images?” with 32% inadequacy.
- For the Report topic, the criterion with the highest number of inadequacies was “Is the content of the medical report adequate?”, with 54% of inadequacy.
- The Laterality topic does not apply to all exams, and most of the inadequacies appointed were not considered relevant. The highest percentage of inadequacy was the criterion “Laterality is correctly identified in the report”, 54% of inadequacy.
- Overall, from 72 exams, 66 (91%) “passed” the evaluation.

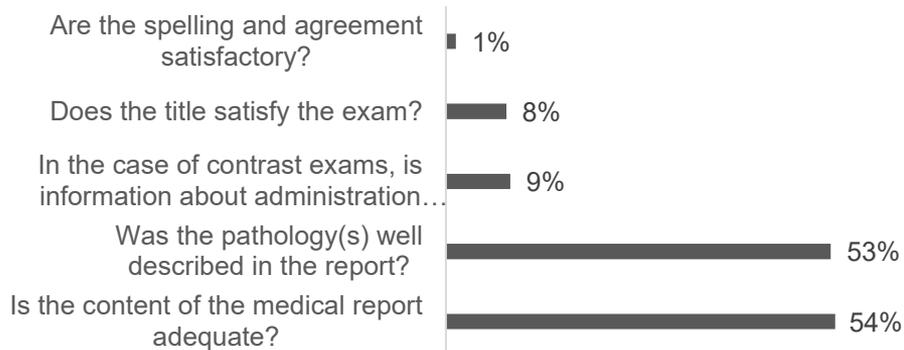
# RESULTS

Magnetic Resonance Scans evaluated

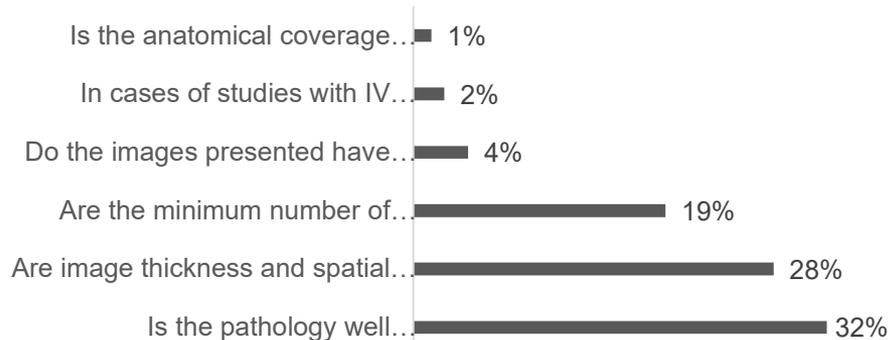


# RESULTS

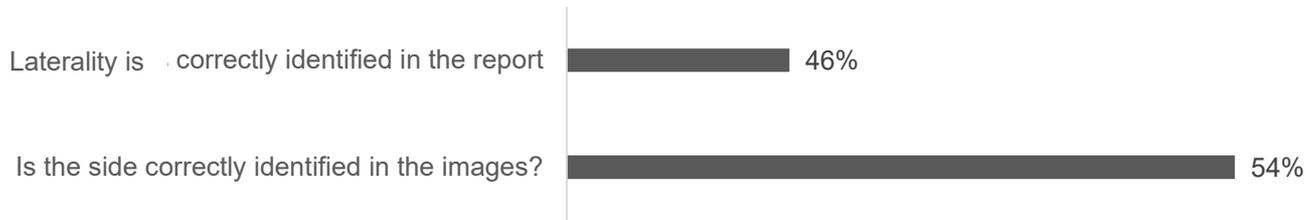
## PERCENTAGE OF INADEQUACIES DISTRIBUTED BY TOPIC: REPORT



## PERCENTAGE OF INADEQUACIES DISTRIBUTED BY TOPIC: QUALITY



## PERCENTAGE OF INADEQUACIES DISTRIBUTED BY TOPIC: LATERALITY



# CONCLUSION

- Most of the problems found in magnetic resonance images and their reports submitted for evaluation were regarding the content of the report, especially the description of the pathology.

# REFERENCES

- Quality at the Brazilian College of Radiology, from [www.cbr.org.br](http://www.cbr.org.br)
- PADI - Diagnostic Imaging Accreditation Program, from [www.padi.org.br](http://www.padi.org.br)
- AMBRA Software [accessed October 25, 2022].



**THANK YOU**

