

*EU JUST CT* 

# Audits of CT justification in Luxembourg

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# Introduction

- **2015: Action plan for the good use of medical imaging**
  - Audits, awareness campaign, promotion of guidelines, medical training, regulatory changes, guidelines, inspections (see A. Schreiner presentation)
- **2016: 1<sup>st</sup> national audit of CT and MRI justification**
  - Only 61% of CT requests were appropriate
  - National report & [Publication](#) in a journal of ESR
- **2023: 2<sup>nd</sup> national audit**
  - [National report](#) in September 2023 (in French)

# Methods

- **Standard for good practice**

- French guidelines on the use of medical imaging (adopted in Luxembourg)

- **External auditors**

- 4 radiologists working in France / Belgium

- **Evaluation of each request**

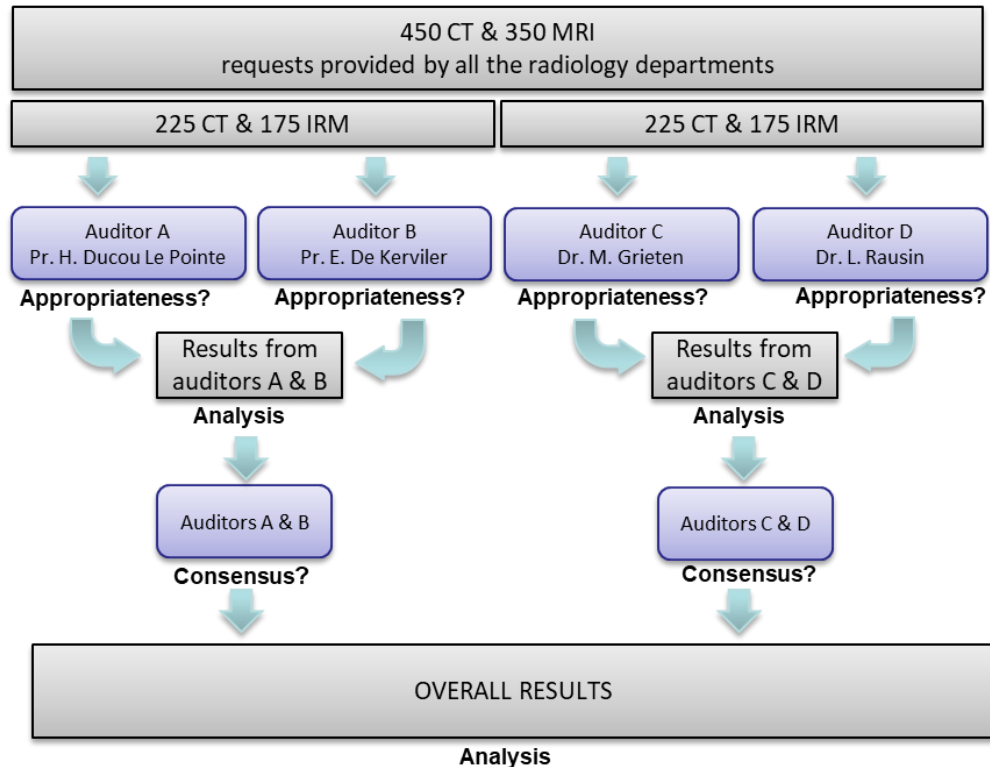
- Presence of information: Clinical context? Clinical question?
- Appropriateness of the requested examination?
- If no: is another type of examination appropriate? Which one?



# Methods

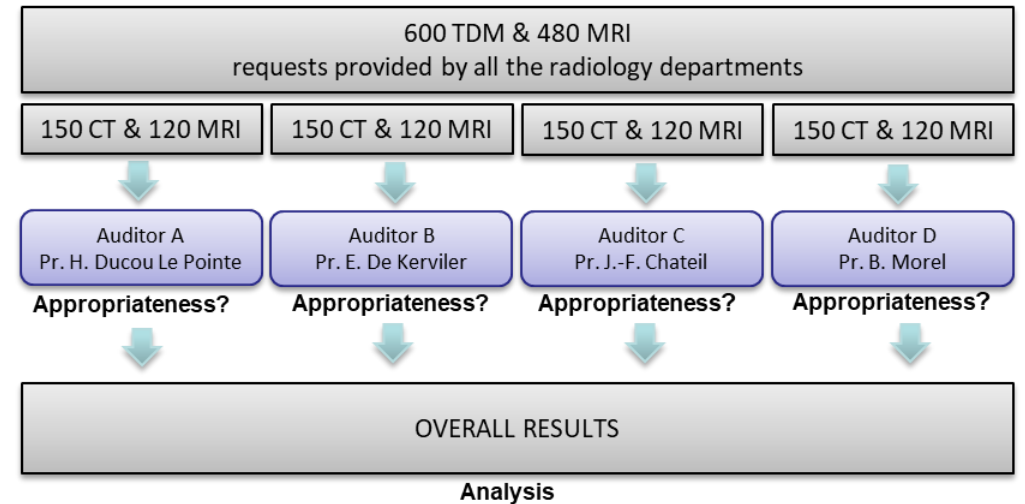
## 2016 – 1<sup>st</sup> national audit

- 450 CT and 350 MRI requests
- Search of consensus for all requests

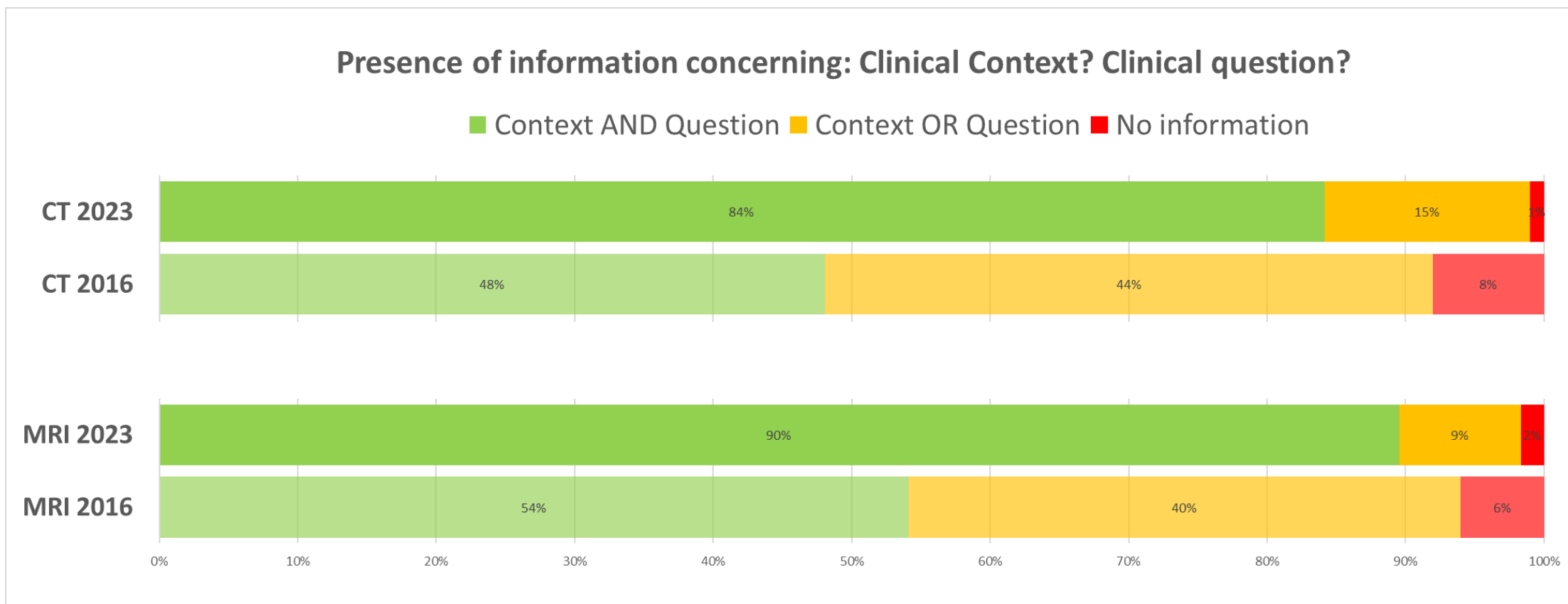


## 2023 – 2<sup>nd</sup> national audit

- 600 CT and 480 MRI requests
- Quality check for 20% of requests

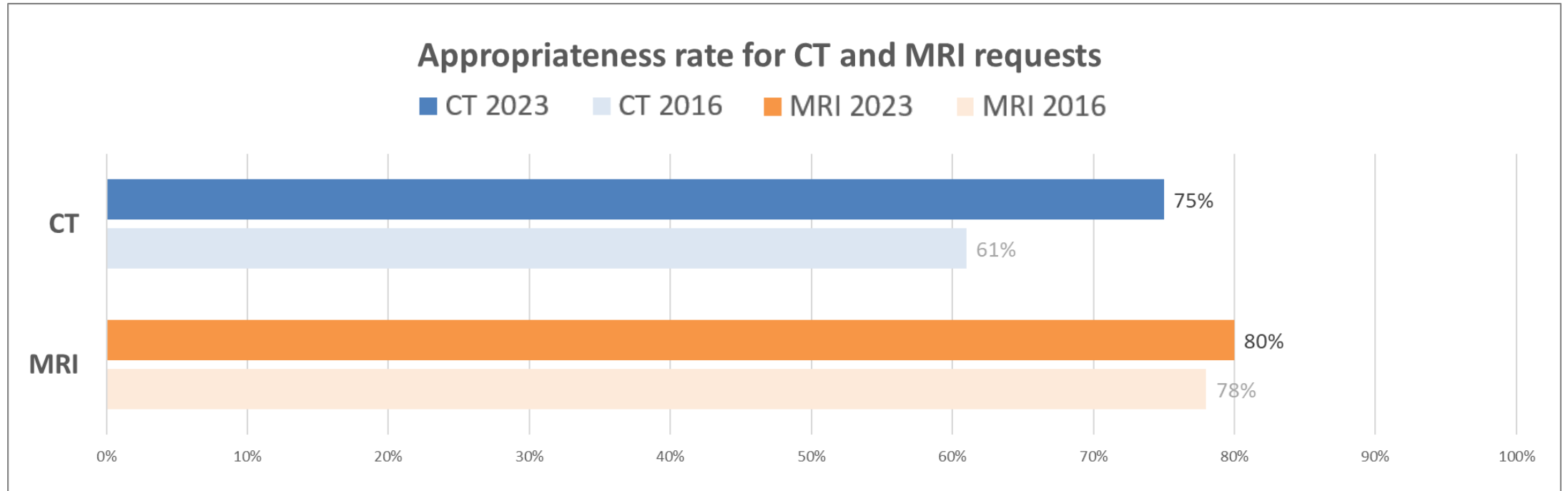


# Results – Completion of requests



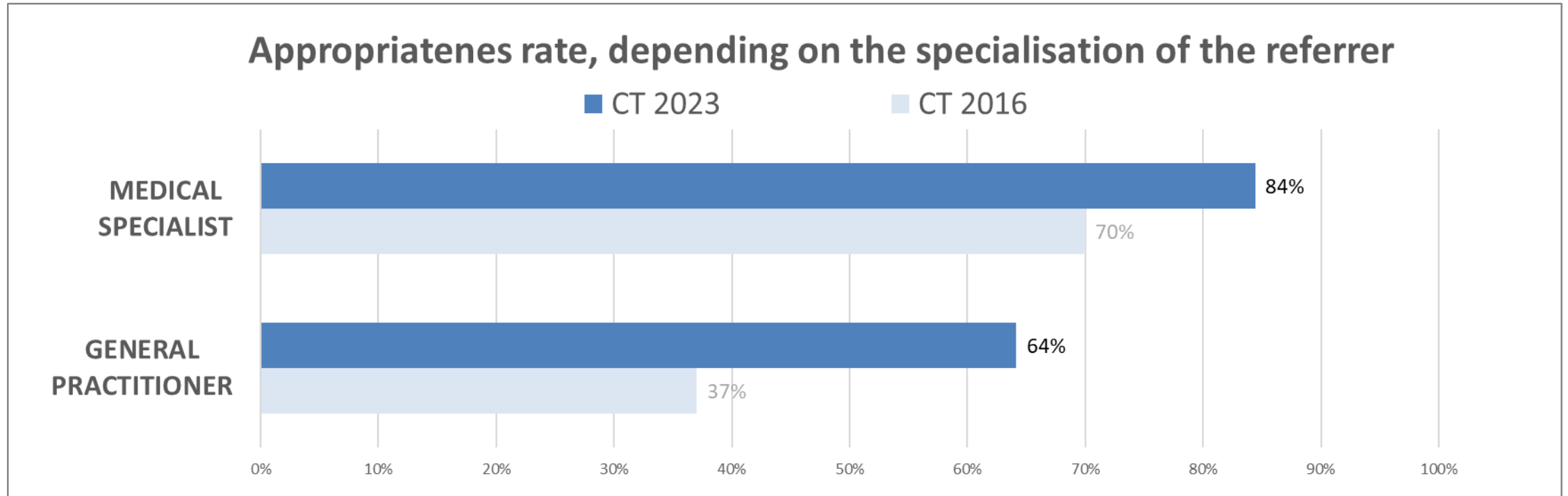
- **CT and MRI requests are filled with more information in 2023 than in 2016**

# Results – Appropriateness



- **For CT: Significant improvement between 2016 and 2023**
- **For MRI: No change**

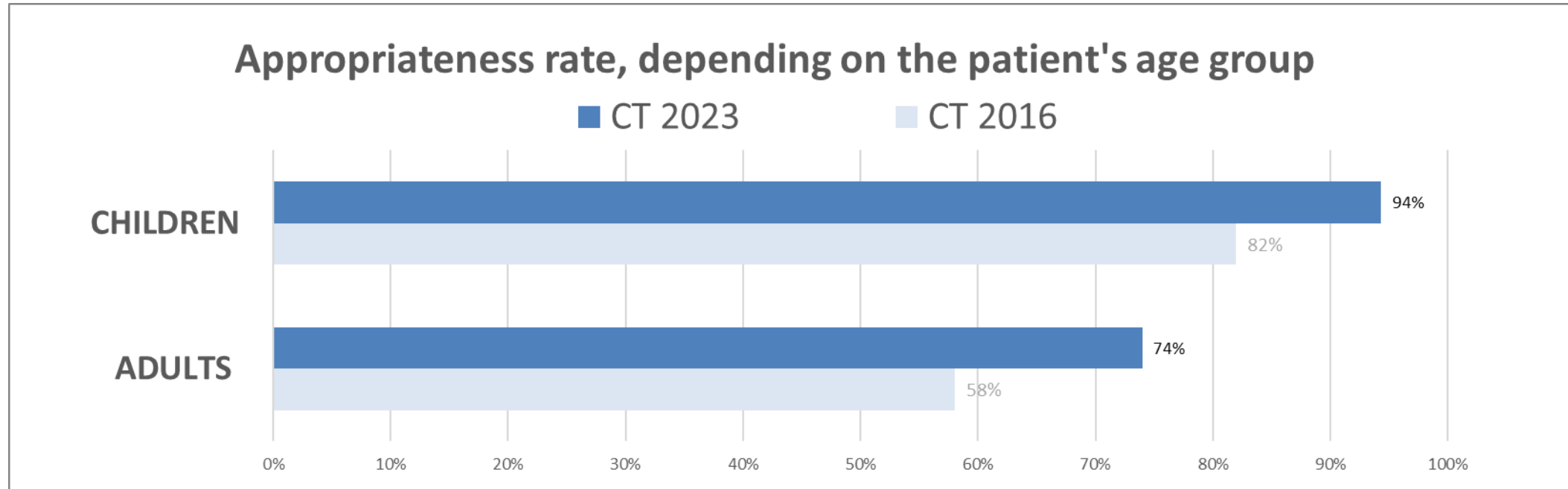
# Results



- **Better results for CT requests from medical specialists than from GPs**



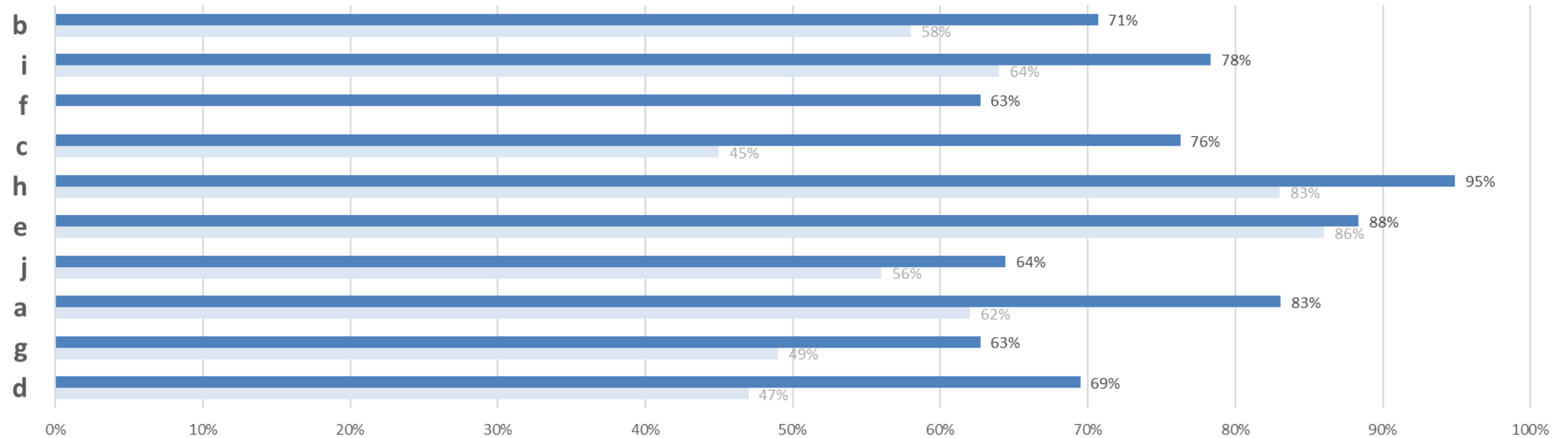
# Results



- **Better results for CT requests concerning children than adults**

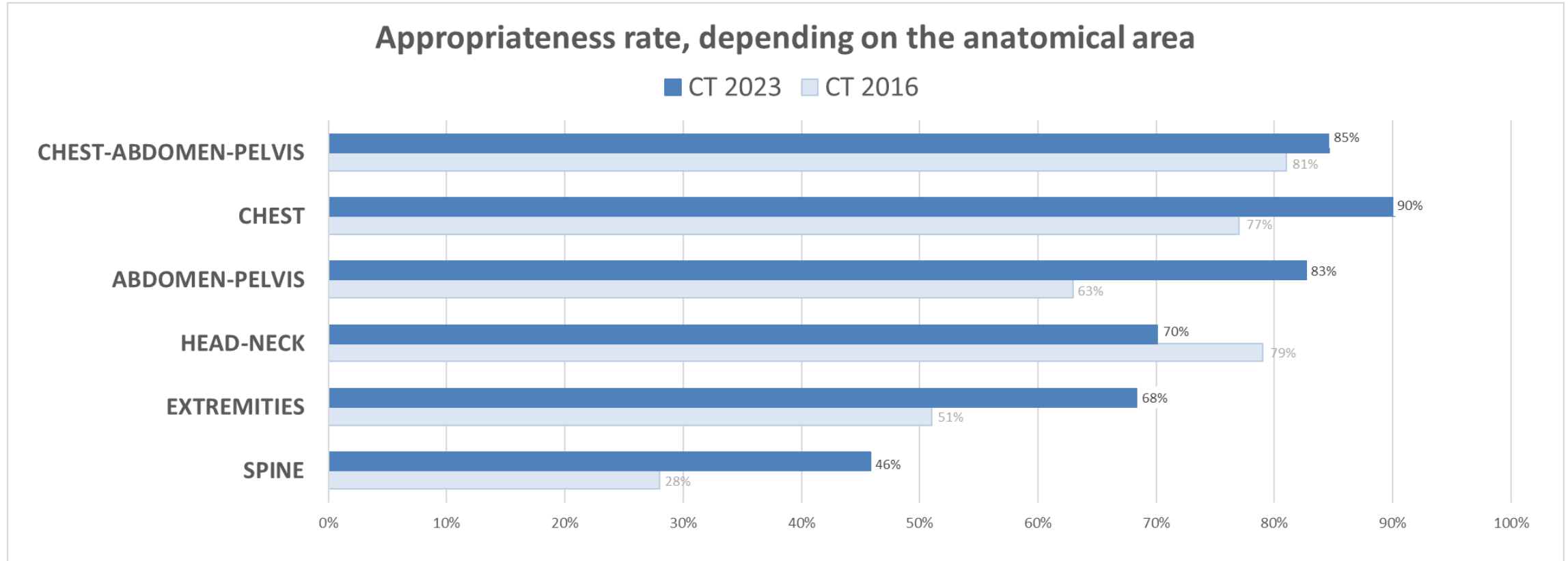
## Appropriateness rate, depending on the radiology department

■ CT 2023 ■ CT 2016



- **Best results for the same departments in 2023 and in 2016**

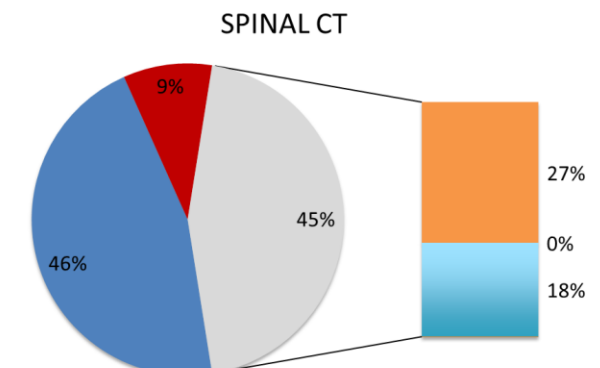
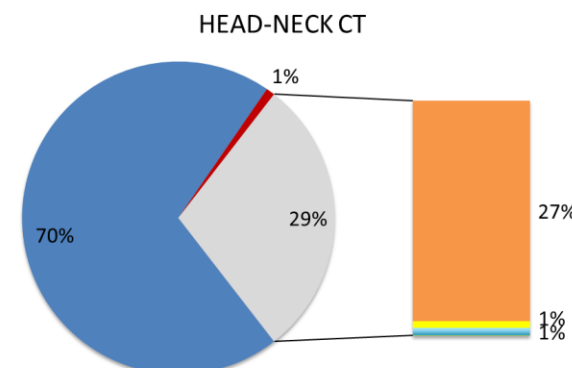
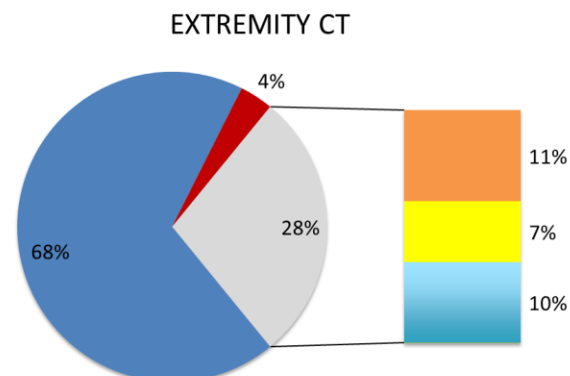
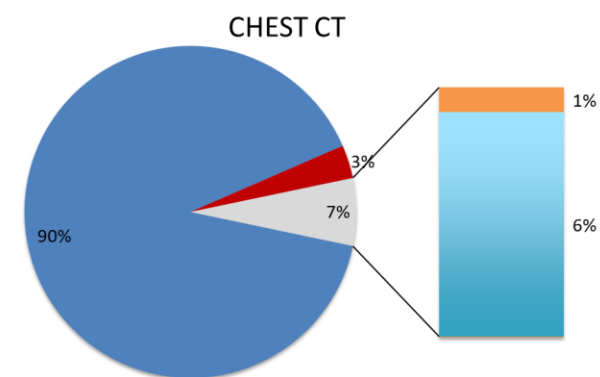
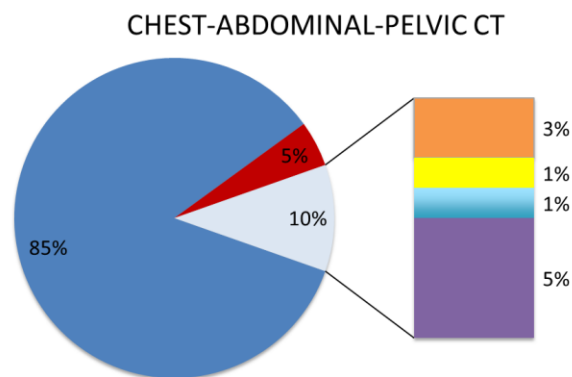
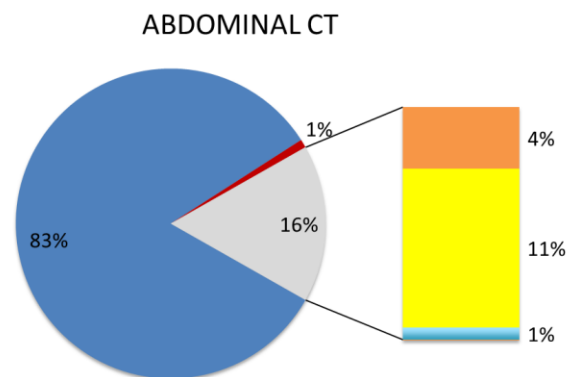
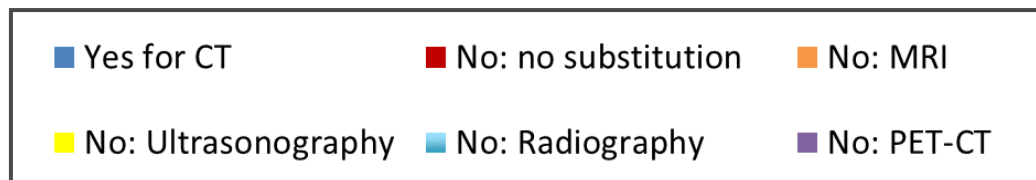
# Results



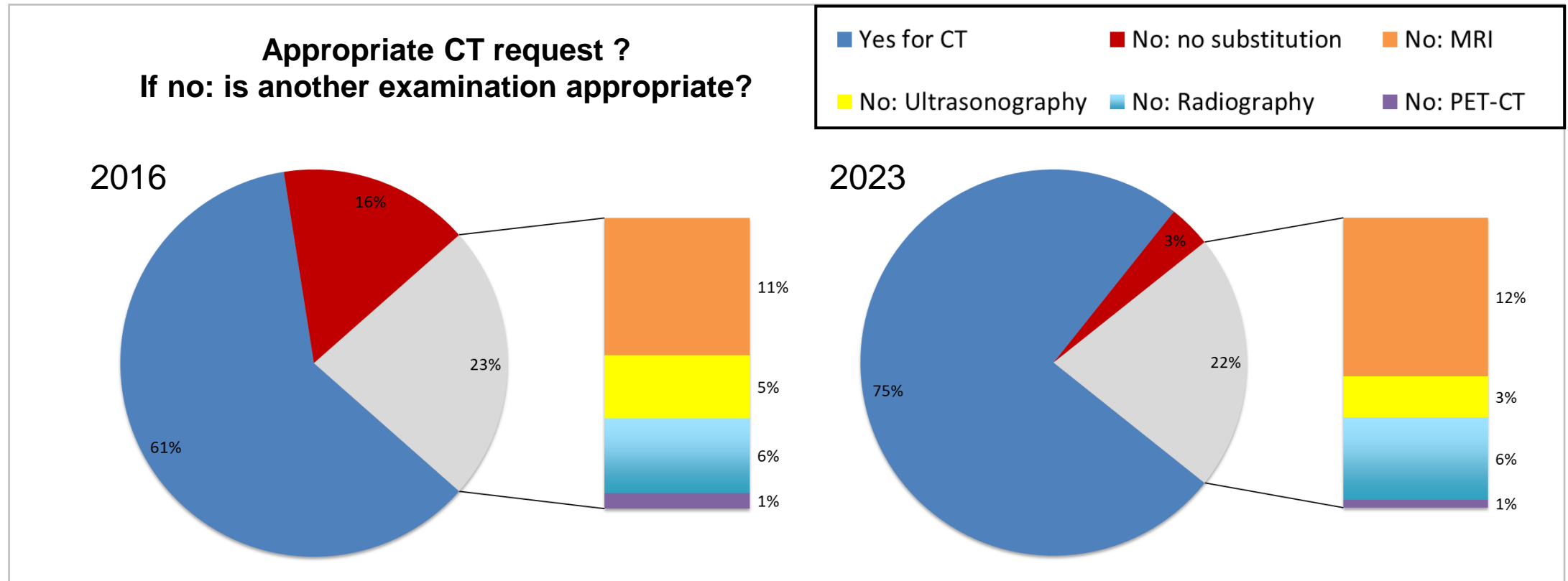
- **Suboptimal results for spinal CT, extremity CT, head-neck CT**

# Results – Possibilities of substitution

**Appropriate CT request ?  
If no: is another examination appropriate?**



# Results



- **No change for possibilities of substitution by other types of examinations**
- **Less inappropriate requests with non possibility of substitution than in 2016**

# Conclusions

- **Encouraging results in 2023**

- More information in the request forms than in 2016
- Appropriateness rate improved for CT (61% -> 75%)
- Substitution possible for virtually all inappropriate CT requests
- Room of improvement for: requests for adult CT, from general practitioners, for spinal / extremity / head CT

- **Positive impact following the action plan**

- **Next steps: recommendations, actions, and... audit again!**

