## 10 years of CARE guidelines in publishing case reports in paediatrics:

### Where do we stand?

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# Why this research? Why now?

The case report is a research design where an unexpected or novel occurrence is described in a detailed report of findings, clinical course, and prognosis of an individual patient, which might be accompanied by a review of the literature of other reported cases

The EQUATOR (Enhancing the QUAlity and Transparency Of health Research) Network is an international initiative that seeks to improve the reliability and value of published health research literature by promoting transparent and accurate reporting and wider use of robust reporting guidelines

CAseREport (CARE) - Gagnier JJ, Kienle G, Altman DG, et al The CARE guidelines: consensus-based clinical case reporting guideline development Case Reports 2013

## Reporting guidelines



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#### Library for health research reporting

The Library contains a comprehensive searchable database of reporting guidelines and also links to other resources relevant to research reporting.



Search for reporting auidelines



Not sure which reporting quideline to use?



Reporting guidelines under development

Afficial Africa, Dilamana, Anni





#### Reporting guidelines for main study types

| Randomiseoale                       | -COLUMN THE   | Extensions        |
|-------------------------------------|---------------|-------------------|
| Observational studies               | STROBE        | <b>Extensions</b> |
| Systematic reviews                  | <u>PRISMA</u> | <b>Extensions</b> |
| Study protocols                     | <u>SPIRIT</u> | PRISMA-P          |
| Diagresuc/prognostic studies        | STARD         | TRIPOD            |
| Case reports                        | CARE          | <b>Extensions</b> |
| <u>elinical practice guidelines</u> | AGPFL         | RIGHT             |
| Qualitative research                | SRQR          | COREQ             |
| Animal pre-clinical studies         | <u>ARRIVE</u> |                   |
| <b>Quality improvement studies</b>  | SQUIRE        | <b>Extensions</b> |



## Why? Who?

#### Why case reports?

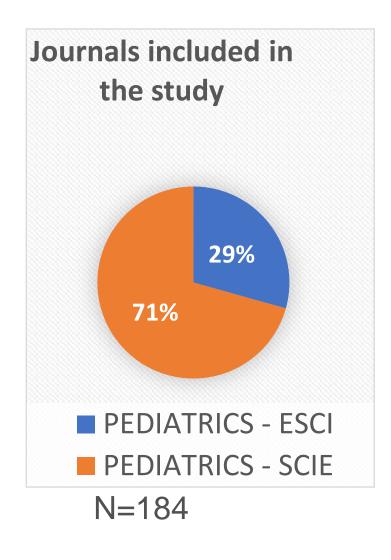
"Good case reporting demands a clear focus, to make explicit to the audience why a particular observation is important in the context of existing knowledge" (Vandenbroucke 2001)

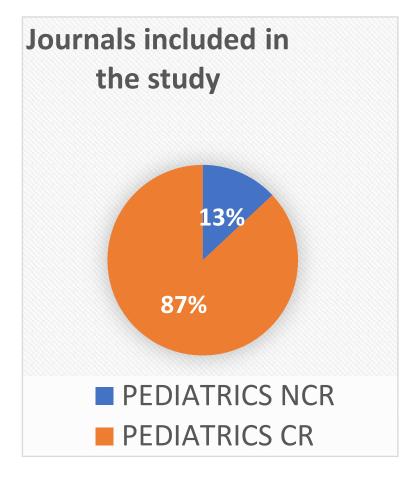
The CARE guidelines for case reports help authors reduce risk of bias, increase transparency, and provide early signals of what works, for which patients, and under which circumstances

#### Who benefits from quality case reporting (CARE guidelines)?

Patients
Clinicians
Researchers
Educators
Authors
Medical Journals

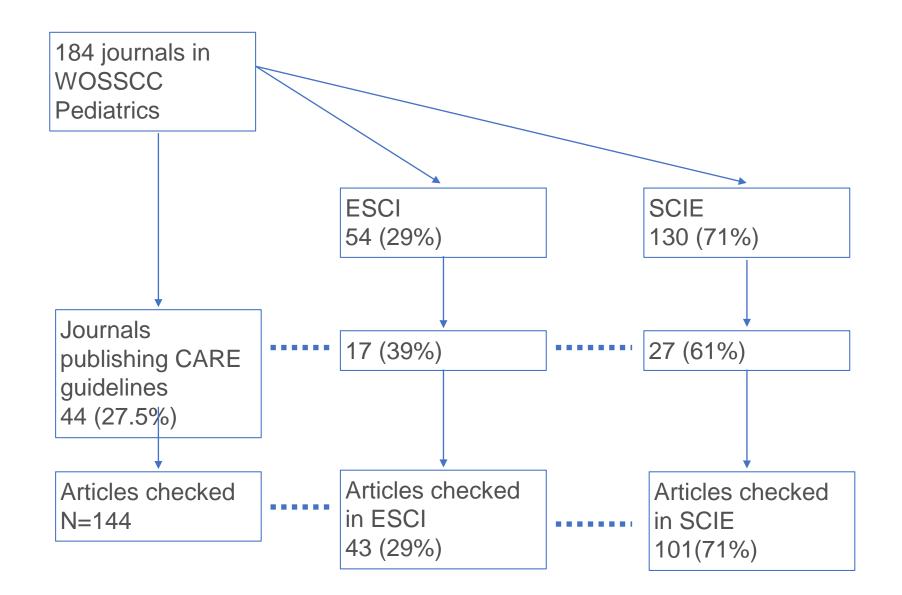
### Methods





N = 184

## Study protocol



- 1. Open access
- 2. 10% case reports in the last 10 years
- 3. If there were >100 CR then 10 CR were analyzed



#### CARE Checklist of information to include when writing a case report



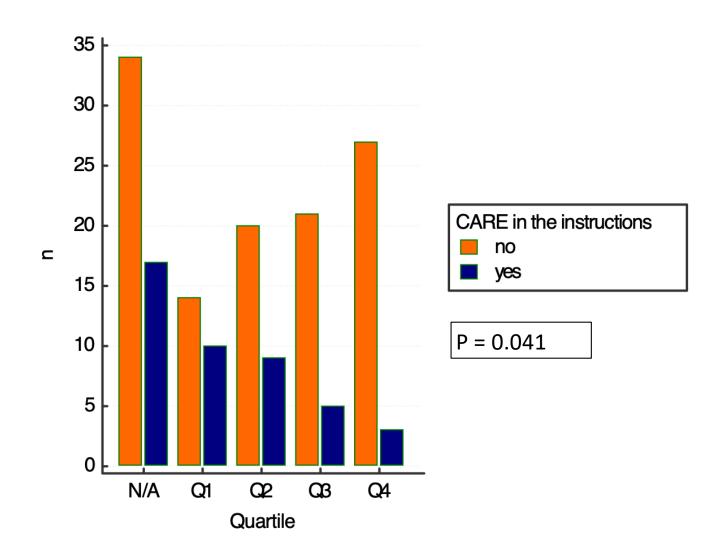


| Topic               | Item | Checklist item description   | Reported on Line |  |  |
|---------------------|------|--|------------------|--|--|
| Title               | 1    | The diagnosis or intervention of primary focus followed by the words "case report"                     |                  |  |  |
| Key Words           | 2    | 2 to 5 key words that identify diagnoses or interventions in this case report, including "case report" |                  |  |  |
| Abstract            | 3a   | Introduction: What is unique about this case and what does it add to the scientific literature?        |                  |  |  |
| (no references)     | 3b   | Main symptoms and/or important clinical findings   |                  |  |  |
|                     | 3c   | The main diagnoses, therapeutic interventions, and outcomes  |                  |  |  |
|                     | 3d   | Conclusion—What is the main "take-away" lesson(s) from this case?                                      |                  |  |  |
| Introduction        | 4    | One or two paragraphs summarizing why this case is unique (may include references)                     |                  |  |  |
| Patient Information | 5a   | De-identified patient specific information   |                  |  |  |
|                     | 5b   | Primary concerns and symptoms of the patient   |                  |  |  |
|                     | 5c   | Medical, family, and psycho-social history including relevant genetic information                      |                  |  |  |
|                     | 5d   | Relevant past interventions with outcomes  |                  |  |  |
| Clinical Findings   | 6    | Describe significant physical examination (PE) and important clinical findings                         |                  |  |  |
| Timeline            | 7    | Historical and current information from this episode of care organized as a timeline                   |                  |  |  |
| Diagnostic 8a       |      | Diagnostic testing (such as PE, laboratory testing, imaging, surveys).                                 |                  |  |  |
| Assessment          | 8b   | Diagnostic challenges (such as access to testing, financial, or cultural)                              |                  |  |  |
|                     | 8c   | Diagnosis (including other diagnoses considered)   |                  |  |  |
|                     | 8d   | Prognosis (such as staging in oncology) where applicable   |                  |  |  |
| Therapeutic         | 9a   | Types of therapeutic intervention (such as pharmacologic, surgical, preventive, self-care)             |                  |  |  |
| Intervention        | 9b   | Administration of therapeutic intervention (such as dosage, strength, duration)                        |                  |  |  |
|                     | 9c   | Changes in therapeutic intervention (with rationale)   |                  |  |  |
| Follow-up and       | 10a  | Clinician and patient-assessed outcomes (if available)   |                  |  |  |
| Outcomes            | 10b  | Important follow-up diagnostic and other test results  |                  |  |  |
|                     | 10c  | Intervention adherence and tolerability (How was this assessed?)                                       |                  |  |  |
|                     | 10d  | Adverse and unanticipated events   |                  |  |  |
| Discussion          | 11a  | A scientific discussion of the strengths AND limitations associated with this case report              |                  |  |  |
|                     | 11b  | Discussion of the relevant medical literature with references.   |                  |  |  |
|                     | 11c  | The scientific rationale for any conclusions (including assessment of possible causes)                 |                  |  |  |
|                     | 11d  | The primary "take-away" lessons of this case report (without references) in a one paragraph conclusion |                  |  |  |
| Patient Perspective | 12   | The patient should share their perspective in one to two paragraphs on the treatment(s) they received  |                  |  |  |
| Informed Consent    | 13   | Did the patient give informed consent? Please provide if requested Yes                                 |                  |  |  |

- 0-13 points (topics)
- If one item of topic was not met, point was not assigned

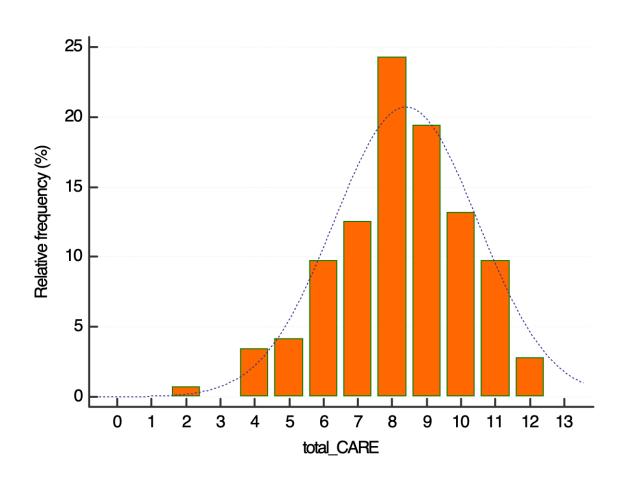
## Results

## CARE guidelines in the instructions for authors



- Out of 160 → 44 (27.5%) have CARE in the instructions for authors
- Higher the quartile more CARE guidelines included in the instructions (P=0.041)

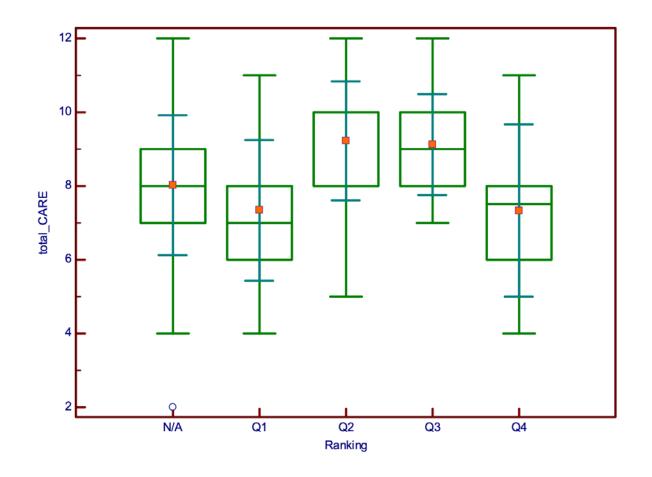
# Distribution of CARE points in 144 analyzed case reports



• M (SD): 8.2 (1.9)

| Sample size                          | 144                         |
|--------------------------------------|-----------------------------|
| Lowest value                         | <u>2,0000</u>               |
| Highest value                        | <u>12,0000</u>              |
| Arithmetic mean                      | 8,2361                      |
| 95% CI for the mean                  | 7,9190 to 8,5532            |
| Median                               | 8,0000                      |
| 95% CI for the median                | 8,0000 to 9,0000            |
| Variance                             | 3,7061                      |
| Standard deviation                   | 1,9251                      |
| Relative standard deviation          | 0,2337 (23,37%)             |
| Standard error of the mean           | 0,1604                      |
| Coefficient of Skewness              | -0,3889 (P=0,0555)          |
| Coefficient of Kurtosis              | 0,1142 (P=0,6527)           |
| D'Agostino-                          | accept Normality (P=0,1444) |
| Pearson test for Normal distribution |                             |

# CARE points according to the ranking

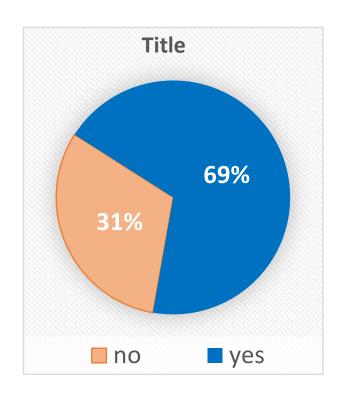


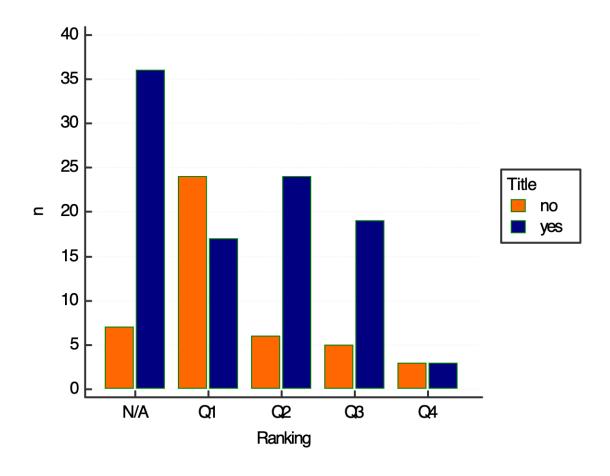
| F-ratio            | 6,962     |
|--------------------|-----------|
| Significance level | P < 0,001 |

#### Scheffé test for all pairwise comparisons

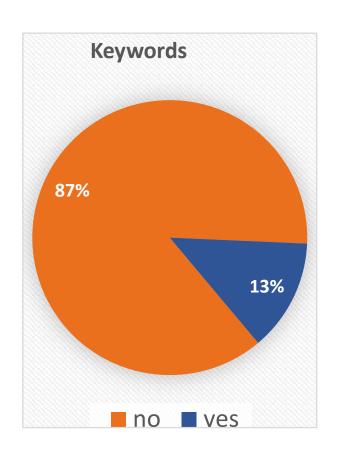
| Factor  | <u>"</u> | Mean   | SD     | Different (P<0,05)<br>from factor nr |
|---------|----------|--------|--------|--------------------------------------|
| (1) N/A | 43       | 8,0233 | 1,8960 |                                      |
| (2) Q1  | 41       | 7,3415 | 1,9054 | (3)(4)                               |
| (3) Q2  | 30       | 9,2333 | 1,6121 | (2)                                  |
| (4) Q3  | 24       | 9,1250 | 1,3613 | (2)                                  |
| (5) Q4  | 6        | 7,3333 | 2,3381 |                                      |

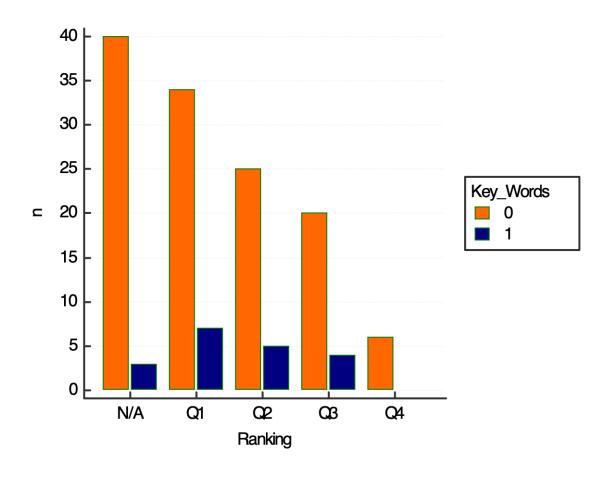
## Title CARE checklist 1



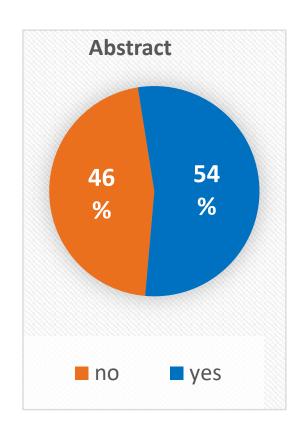


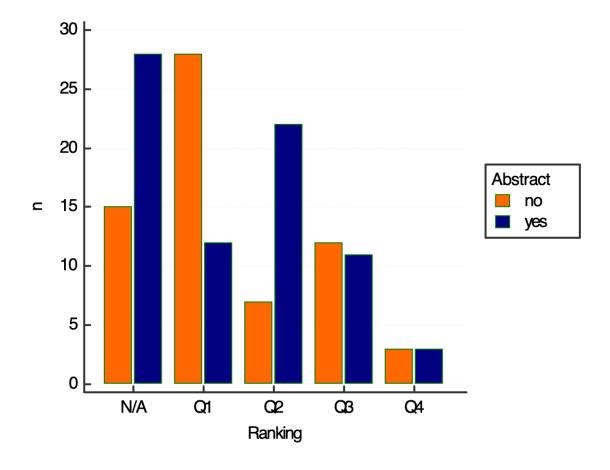
## Keywords CARE checklist 2





## Abstract CARE checklist 3





### Conclusion

1 importance to include CARE guidelines in instruction to authors

2 better adherence trough editing process (CARE checklist)

3 aknowledge better results of journals ranked Q2, Q3 and ESCI, probably as an effort to better future ranking

## THANK YOU

