

# How to switch a manual record collection with an automatic calculation from medico-administrative database for quality indicators?

**Example of the quality indicator « Care project, life project » in rehabilitation care**

Sophie Baron, Marie-Caroline Clément, Robin Louvel, Pauline Renaud and Joëlle Dubois



- Since 2009, quality indicators for rehabilitation hospitals have been developed by the French National Authority for Health (HAS)
  - Score based on data collected from patient record
  - Patient record analyzed are selected at random each year



- Hospital Financial Incentive for Quality Improvement program (IFAQ) implemented by the Ministry of health
  - 2012-2015 experimentation in acute care hospitals
  - 2016 all acute care hospitals
  - 2017 all rehabilitation care hospitals
  
- ➔ IFAQ is mainly based on HAS indicators from patient record
  - HAS indicators for IFAQ are collected from stays discharged in the previous year (e.g. 2021 for IFAQ 2022)
  - Mandatory for all hospital with more than 31 stays, recommended for others



- Three HAS indicators are collected in rehabilitation care for IFAQ
  - Quality of discharge letter
  - Pain management and pain assessment
  - Care project, life project

○ Collection from the patient record



High workload for hospitals



Need to reduce the workload



- Ministry of Health asked Technical Agency for Information on hospital Care (ATIH) to switch the current record with the hospital medico-administrative database (PMSI) for the calculation of IFAQ indicators
  - ➔ “Care project, life project” indicator (PSPV) for rehabilitation hospitals has been selected to explore the feasibility

## Aim of the study

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To explore the feasibility to switch the current patient record collection with the use of hospital medico-administrative databases (PMSI) for the calculation

# Information currently collected

Data collected each week



ICD10

Main morbidity

Other diseases (secondary diagnosis)

French rehabilitation procedures classification (CSARR)

Rehabilitation

Physiotherapist

Social worker

Occupational therapist

Psychologist



Disability measurement







French adapted Activity daily life score

- Currently, “ Care project, life project ” is calculated on 8 criteria
  1. Medical examination at admission
  2. Autonomy assessment
  3. Social assessment
  4. Psychological assessment
  5. Care project
  6. Pluridisciplinary meeting
  7. Life project
  8. Patient (or family) participation to his life project

*More information on HAS website : [https://www.has-sante.fr/upload/docs/application/pdf/2022-03/dpa\\_ssr\\_pspv\\_fiche\\_descriptive\\_2022.pdf](https://www.has-sante.fr/upload/docs/application/pdf/2022-03/dpa_ssr_pspv_fiche_descriptive_2022.pdf)*



### ○ Data available in PMSI

1. Medical examination at admission => **No**
2. Autonomy assessment => Yes  French adapted ADL score
3. Social assessment => Yes  rehabilitation procedures
4. Psychological assessment => Yes  rehabilitation procedures
5. Care project => Yes  rehabilitation procedures
6. Pluridisciplinary meeting => Yes  rehabilitation procedures
7. Life project => Yes  rehabilitation procedures
8. Patient (or family) participation to his life project : **No**

There will be a slight difference between the 2 indicators

- Development of the indicator calculation from PMSI
  1. Algorithm was developed to approximate each criterion with data available
  2. Statistician coded algorithm
  
- Use of PMSI data for the years 2018 to 2020
  - All stays meeting characteristics to be included in the random selection for HAS indicator from patient records were included for PMSI calculation
  
- Comparison of the results from patient record versus PMSI database

## Results (1/3)

○ Score based on **PMSI data** << score based on **patient record** for all criteria except one

1. Medical examination at admission => **No**

2. **Autonomy assessment** => **Yes**

**PMSI** >> **Patient record**

3. **Social assessment** => **Yes**

4. **Psychological assessment** => **Yes**

5. **Care project** => **Yes**

6. **Pluridisciplinary meeting** => **Yes**

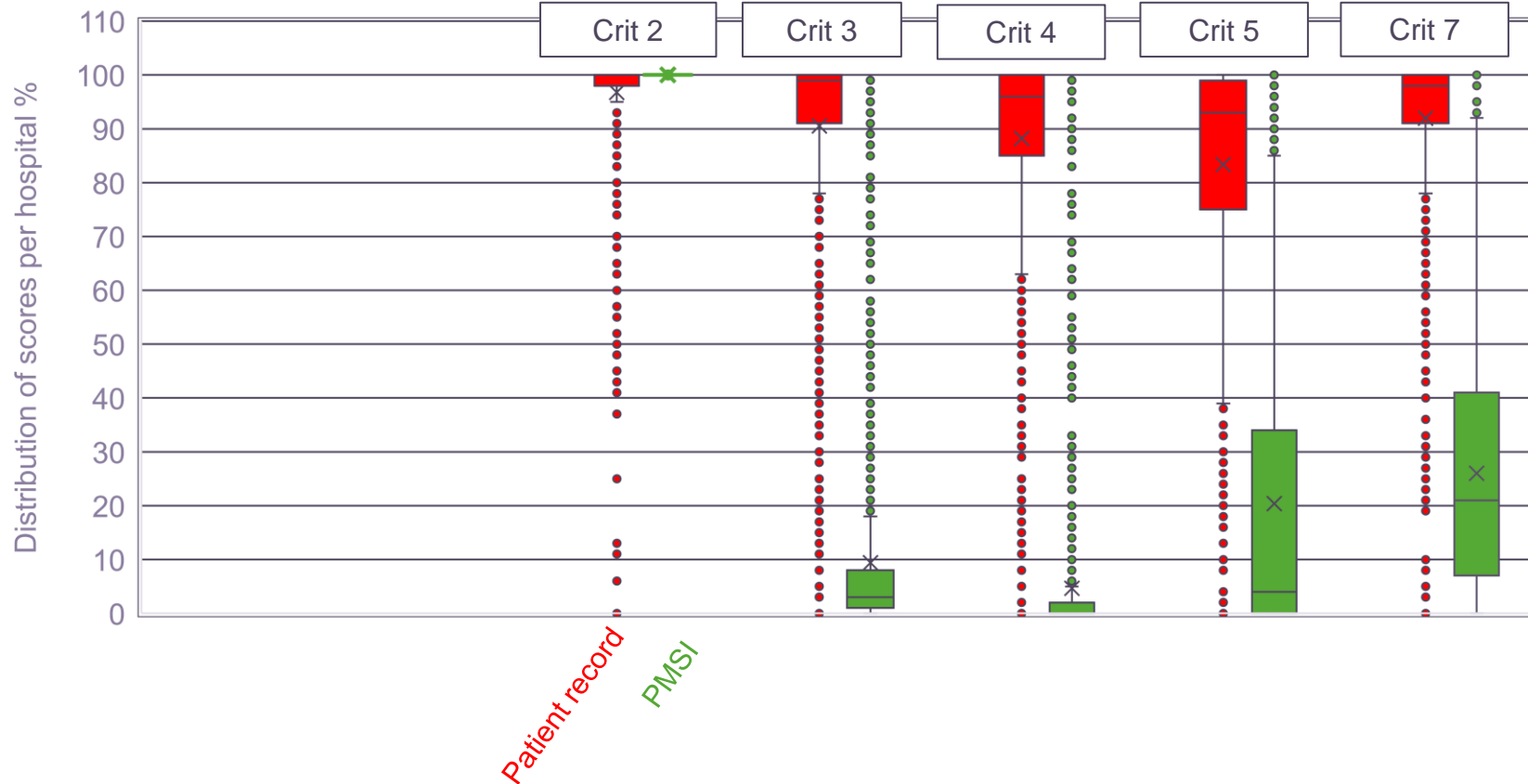
7. **Life project** => **Yes**

**Patient record** >> **PMSI**

8. Patient (or family) participation to his life project : **No**

# Results : score comparison (1/4)

Distribution of scores on **patient record** and **PMSI data**



Crit 2 : autonomy assessment

Crit 3 : social assessment

Crit 4 : psychological assessment

Crit 5 : care project

Crit 7 : life project

## Results (2/4) : criterion 6 pluridisciplinary meeting

Coding frequency of the ZC+221 code, time limit,  
 >= 4 professionals



On patient record : mediane of  
 scores per hospital is 68%

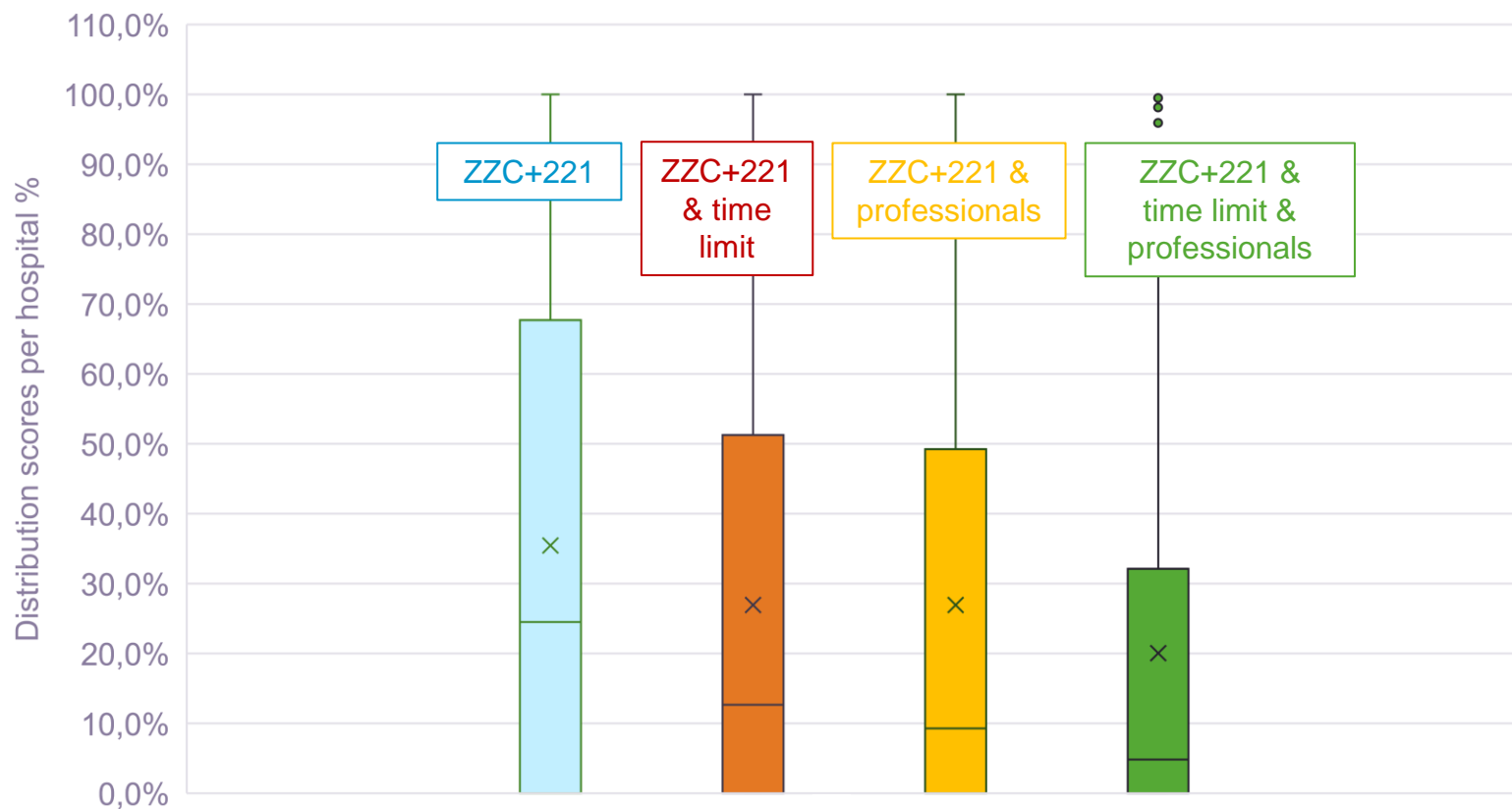
ZC +221 code : interdisciplinary synthesis,  
 pluriprofessional procedure (CSARR  
 classification)

PMSI : 27% of the hospitals never  
 code ZC+221

- Public and private hospital  
 Including teaching hospital
- Small hospital (1 stay  
 selected) or large (1646 stays  
 selected)

# Results 4/4 : criterion 6 pluridisciplinary meeting

Coding frequency of the ZC+221 code according to constraints



Constraints related to meeting realization

- In the first fortnight (+)
- With 4 professionals (+)
- In the first fortnight AND with 4 professionals (++)

Cause the median decrease

## Discussion (1/4)

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- Low completeness
  - Only 10% of funding based on classification
- Misunderstanding of the wordings

## Discussion (2/4)

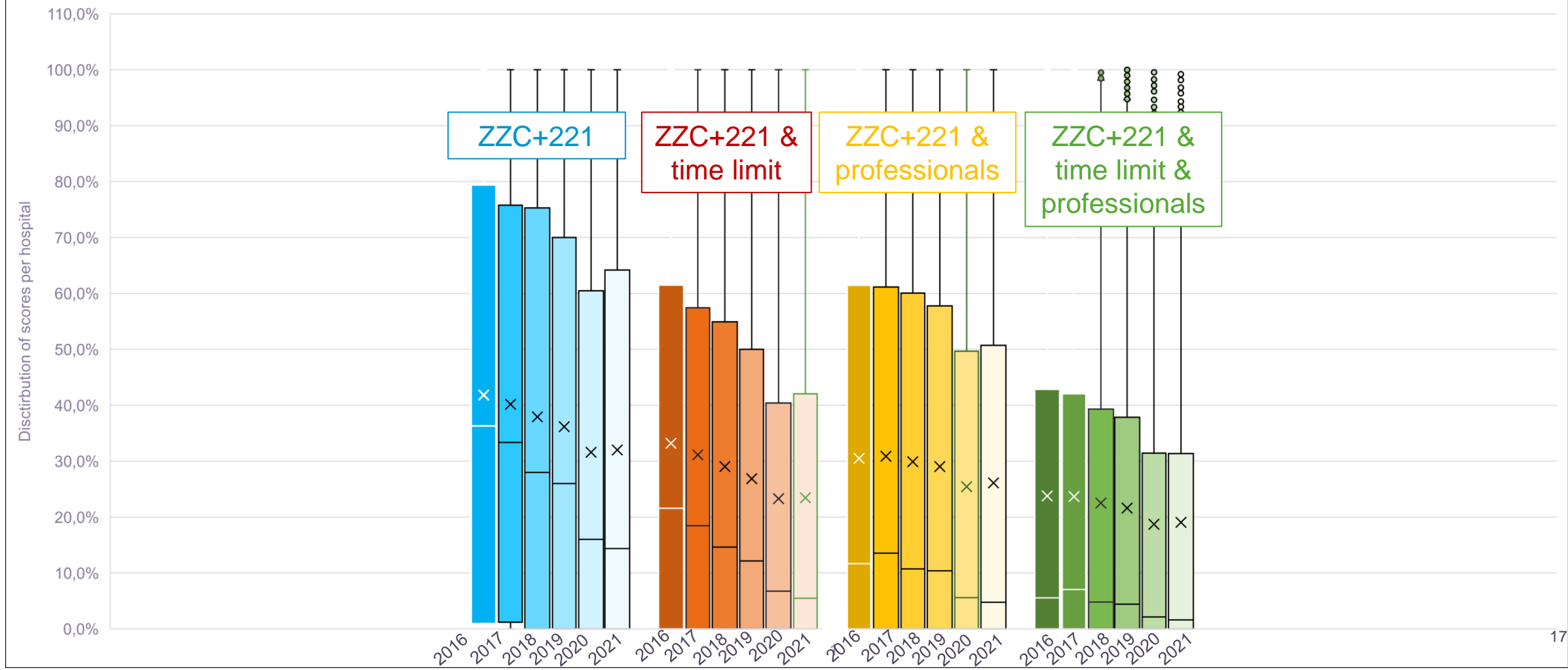
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- Implementation of quality control on ZZC+221, in 2018
  - misuse of ZZC+221, often coded for the weekly team meeting instead of interdisciplinary synthesis
  - Restriction on the possible frequency of recording this code



# Discussion (3/3)

% of stay with ZCC+221, by constraints, by years



- Are HAS definition and PMSI definition equal ?
- Social assessment
  - HAS definition : the criterion is met if there is a record of a social assessment within 7 days of admission is found in the patient record
    - Mention in the patient record that the social situation is fine and does not require a social worker is sufficient to meet the criterion
  - PMSI definition : the criterion is met if there is ZZQ+184 procedure code of social evaluation and if realization date is within admission date + 7
    - No restriction on type of professionals (social workers or other professionals)
    - ZZQ+184 can only be coded if a thorough social assessment has been conducted at the request of healthcare professionals dealing with a complicated social situation

## What should be done next ?

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- In-depth analyze of the 2021 results :
  - HAS patient record collection has been adapted to allow a comparison per hospital stay between data from patient record and from PMSI data for each criterion
  - It will allow ATIH to compare CSARR coding in PMSI according to responses in HAS patient record → possibility to adjust the algorithm
  - Results expected the last quarter of 2022

- Should we continue our work to try to switch manual patient record with medico-administrative data for the calculation of quality indicators ?
- HAS warnings on the need to distinguish HAS indicators from patient record and from PMSI data
  - Differences in definitions
  - Qualitative control of the procedures possible from patient records; not in PMSI
  - PMSI indicator will remain a “proxy” of HAS patient record quality indicator → Need to rename the indicator to show the difference
- PMSI is a medico-administrative database mainly used for funding. The first part of that work shows that if PMSI is use for the calculation of quality indicators, it would have a need to clarify and reinforce coding instructions
- But high interest to reduce workloads for hospitals

# Perspectives

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- If the next results are conclusive for a switchover, perhaps it will still be necessary to imagine a combination of the two calculation methods?
  - For example, an automatic calculation based on the PMSI every year, but with the HAS continuing to collect data every 2 or 3 years to monitor

**Merci pour votre attention**

**Agence technique de l'information  
sur l'hospitalisation**

117, bd Marius Vivier Merle 69329 Lyon cedex 03

Téléphone : 04 37 91 33 10

Fax : 04 37 91 33 67

**[www.atih.sante.fr](http://www.atih.sante.fr)**

## Criterion 6 : Pluridisciplinary meeting

### HAS definition

- The criterion is met if:
  - For patients hospitalized less than 30 days, a multi-professional meeting held within the first 2 weeks is indicated in the patient record,
  - Multi-professional meeting needs to involve at least
    - 1 doctor
    - 1 nurse and/or a health executive and/or a health assistant
    - 2 rehabilitators or 1 rehabilitator and a social worker

### PMSI adapted definition

- The criterion is met if:
  - ZCC + 221 code (Interdisciplinary rehabilitation synthesis)
    - synthesis of all the assessments carried out by all the professionals in charge of the patient leading to a therapeutic project, such as the P3I Protocol
    - definition of the patient's care management
    - preparation for discharge in accordance with the life project
    - With or without: presence of the patient and/or his family
  - is coded in PMSI in the first 2 weeks
  - At least 4 professionals involved