INTRODUCTION
- Improving the quality of drug prescribing is an important challenge for the nursing homes (NHs).
- Polymedication is frequent in nursing home residents.
- This increases the risk of potentially inappropriate drug prescribing (PIDP), which can lead to adverse drug events such as falls and hospitalization.

METHODS: PART OF THE IQUARE STUDY (Trial registration number : NCT01703689)
- IQUARE study (Impact d’une démarche QUAlité sur l’évolution des pratiques et le déclin fonctionnel des Résidents en EHPAD) is a multicentric individually-tailored controlled trial performed in NHs in the Midi-Pyrénées area, South-Western, France.
- Aim of our study
  - To identify the prevalence of PIDP in a sample of NH residents in France, combining explicit and implicit criteria, and to identify which NH characteristics were associated with PIDP.
- Design
  - Cross-sectional study.
- Setting
  - 175 NHs in Midi-Pyrénées region, South-Western France.
- Participants
  - 974 subjects randomly selected from the 6275 NH residents participating in the IQUARE study.
- Exposure
  - Patients with Potentially inappropriate drug prescribing (PIDP).
- Main Outcome measures
  - PIDP was the main outcome measure.
  - It was defined using a specific indicator, based on the Summary of Product Characteristics, on the Laroche’s list, and on residents’ clinical data.

RESULTS
- Among the 974 residents included, 71 % had potentially inappropriate drug prescribing.
- PIDP : more frequent in patients without dementia, with several comorbidities and taking multiple medications.
- In the multivariable analysis:
  - age (Odds Ratio (OR)=1.02; 95% Confidence Interval (CI) [1.01 - 1.03]) and Charlson Comorbidity Index (CCI, p=0.003, CCI=1 versus 0: OR=1.22; 95% CI [0.85 - 1.74], CCI ≥ 2 versus 0: OR=1.72; 95% CI [1.23 – 2.41]) were associated with an increased likelihood of PIDP.
  - By contrast, dementia was associated with a lower likelihood of PIDP (OR=0.70; 95% CI [0.53 - 0.94]).
  - Among NH structural and organizational characteristics, the access to psychiatric advice and/or to hospitalization in a psychiatric unit (OR=1.36; 95%CI [1.02 – 1.82]) and the presence of a re-evaluation of drug prescriptions (OR=1.45; 95% CI [1.07 - 1.96]) were associated with an increased likelihood of PIDP.

CONCLUSION
This study provides the first multilevel findings of prescribing drugs with an unfavorable benefit-to-risk ratio among NH residents in France. Structural and organizational factors in NHs would be easier to change than individual characteristics of residents. Gaining a better understanding of the factors influencing PIDP can help to determine the interventions that should be implemented.

PERSPECTIVES
- Validate the specific indicator of PIDP.
- Determine the association between PIDP and hospitalization and functional decline after a 18 month follow-up.

PUBLICATION