

# TABLET CRUSHING AND HARD CAPSULE OPENING PRACTICES IN NURSING HOME AND LONG-TERM CARE UNIT

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## Background

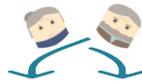
- In geriatrics, drugs are frequently crushed or opened to facilitate their administration.
- However, these operations can lead to medication errors.

**Purpose of the study:** evaluate medication crushing and opening practices in a residence for the elderly in order to identify corrective actions likely to improve such practice

## Material & Method

- A prospective study was performed in a French University Hospital residence comprising a nursing home and a long-term care unit (266 patients).
  - Patient for whom treatment was crushed or opened were identified,
  - Prescriptions and causes for crushing and opening drugs were analysed,
  - Drugs and respective administration techniques were studied,
  - Economic impact was not considered.

## Results



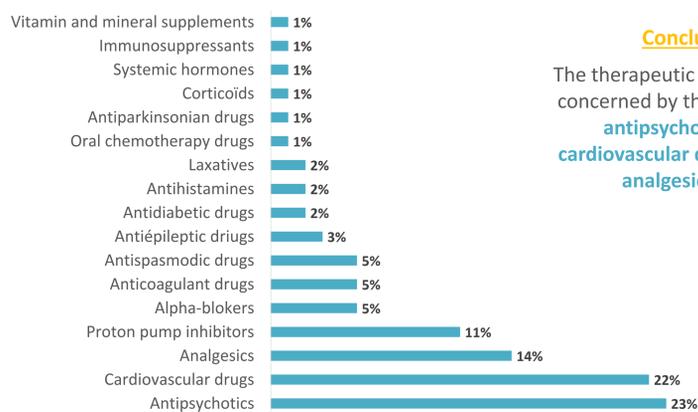
**100 patients were included**  
38 men / 62 women (SR : 0.61)  
Mean age: 85 years [60 - 103 years]

- Patients took on average **7 drugs** [2-13 drugs].
- Medication crushing or opening concerned **38% of patients**.
- On average, **4 drugs** were crushed or opened per resident [0-11 drugs].

- A medical prescription for crushing or opening drugs was found in **49% of cases**.
- The main reasons for crushing or opening drugs were **swallowing disorders** or **psycho-behavioural distress**.

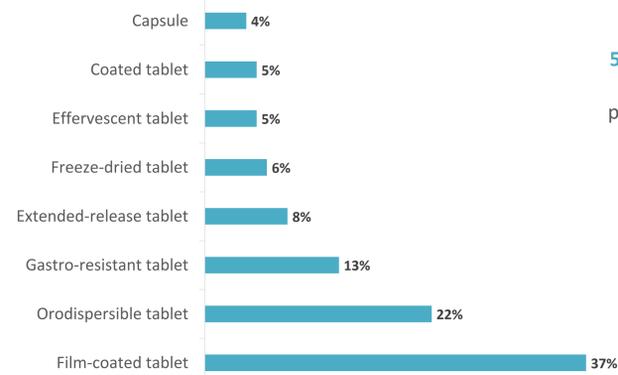


- In **51% of cases**, the decision to crush or open the drugs was made by nurses without physician or pharmacist supervision.
- No nursing traceability of the act was found.



### Conclusion :

The therapeutic classes the most concerned by this practice were **antipsychotics (23%)**, **cardiovascular drugs (22%)** and **analgesics (14%)**.



### Conclusion :

**52%** of crushed or opened drugs (219 drugs) had a galenic presentation which did not allow crushing or opening :  
**Film-coated tablet (37%)**  
**Gastro-resistant tablet (13%)**  
**Extended-release tablet (8%)**

- An alternative galenic presentation was available in **33% of cases** but was not prescribed.
- Although medication crushing or opening was possible, a more suitable galenic presentation was available in our hospital in **80% of cases**.

## Conclusions

- In our residence, medication crushing and opening practices are more important than those found in the literature. However, the rest of our results are in accordance with the literature.
- Corrective actions were developed in order to optimise elderly safety : a list of crushable drugs was given to geriatricians and nurses, info signs about crushing or opening medication were displayed in each care units and nurses were sensitized on the traceability.
- To optimize patient care, a review of prescriptions by a geriatrician and a pharmacist will be established to adapt prescriptions to the patients' clinical situations and capacities.