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.

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.