

ANALYSIS OF ORAL MEDICATION PRESCRIPTION AND ADMINISTRATION THROUGH THE JEJUNOSTOMY OR THE NASOGASTRIC TUBE IN AN INTENSIVE CARE UNIT: HOW TO IMPROVE PATIENT'S HOSPITALISATION?

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Background

In intensive care unit (ICU), patients are frequently unable to take oral tablet and capsule due to invasive ventilation or sedation. Therefore medications are administered by nasogastric tube or jejunostomy. Moreover, it is to be expected that massive resection of the gastrointestinal tract will have consequences on the absorption of orally administered medication. Few data or guidelines were available to help physicians and nurses to prescribe and administer drugs to these patients.

Objectives

To assess prescriptions **1** and administrations **2** of oral medications through the jejunostomy or the nasogastric tube in surgical ICU.

Methods

We conducted

- a prospective descriptive study
- between January and February 2017
- among patients with stomy, or nasogastric tube and oral medications prescriptions.

- Medical data (type of surgical resection ..),
- **Prescription data** : drugs..
- **Administration data** : modalities of preparation and administration
- Were collected
 - in medical files and
 - by nurses interviews by a clinical pharmacist student.

Conformity of drugs

administrations were assessed regarding

- preparation solvent,
- lack of simultaneously mix in the same syringe,
- administration by nasogastric tube allowed
- opening of capsules allowed.

Results

Overall 283 medications were studied for patients presenting an enteral feeding tube or a jejunostomy. Finally, nurses were interrogated about their administration practices for 82 medications to describe the usual process.

1 Prescription

- 283 prescribed drugs
- By 11 physicians (4 seniors and 7 residents)
- **18.3 %** (52/283) of the oral medications were prescribed without indications about specific administration routes (stomy, nasogastric tube or other) when it was necessary and considerations for the digestive resection (Figure).
- Modalities of drugs preparation (solvent...) were never prescribed.

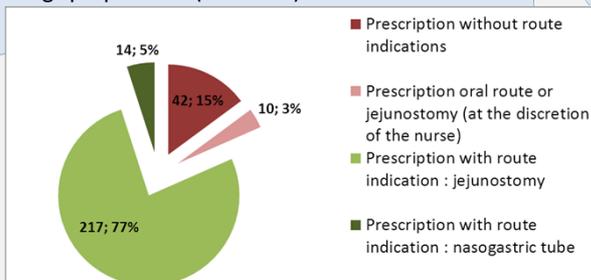


Figure :
Prescribed administration routes (n=283)

2 Regarding administration habits are very different according to nurses,

- medications were mainly solved before administration (99%,n=81/82) into
 - Sodium bicarbonate 1.4% (46.9%, n=38/81)
 - Tap water (33.33% n=27/81)
 - Sodium chloride 0.9% n=1/81)
- Within those medications, 39% (32/82) were simultaneously administered in the same syringe

- Potential physico-chemical interaction,
- Produce toxic metabolites or
- induce reduced efficiency.

After analysis, **69.5%** (n=57/82) of drugs administrations were deemed to be of poor conformity

Discussion / Conclusion

This study highlights the **importance of clear guidelines**.

1 After the survey, pharmacists team purpose prescription and administration guidelines.

2 Hence, a pharmacist analyses orders, gives advices via a new **individual summary sheet** completed according to the patient gastro-intestinal tract resection, the possibility to mash the tablet or open the capsule and available alternatives.