Administration of *Kapanol*® pellets through naso-enteral and gastrostomy tubes

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Background

The Administration of drugs via enteral feeding tubes increases in importance in hospitals. If the desired drug is suitable for tube application, a known pharmaceutical product can be used. For many drugs, application through feeding tubes presents an off-label use as only a few manufacturers provide information on tube feasibility and compatibility in the summary of product characteristics (SmPC).

Kapanol® capsules contain individually coated morphine sulfate pellets for a sustained release. This allows the capsules to be opened and administered twice daily compared to immediate release morphine, which has to be applied six to eight times a day.

The aim of this study was to find out whether it is possible to administer *Kapanol*® pellets through commonly used feeding tubes in order to be able to provide information on tube feasibility in the SmPC.

Methods

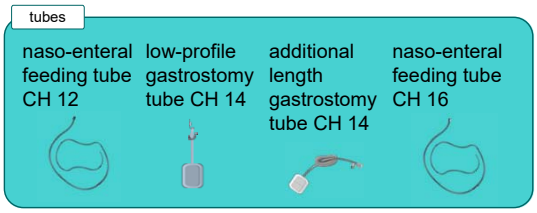
Four different enteral feeding tubes were examined (listed by type).

Naso-enteral tubes:

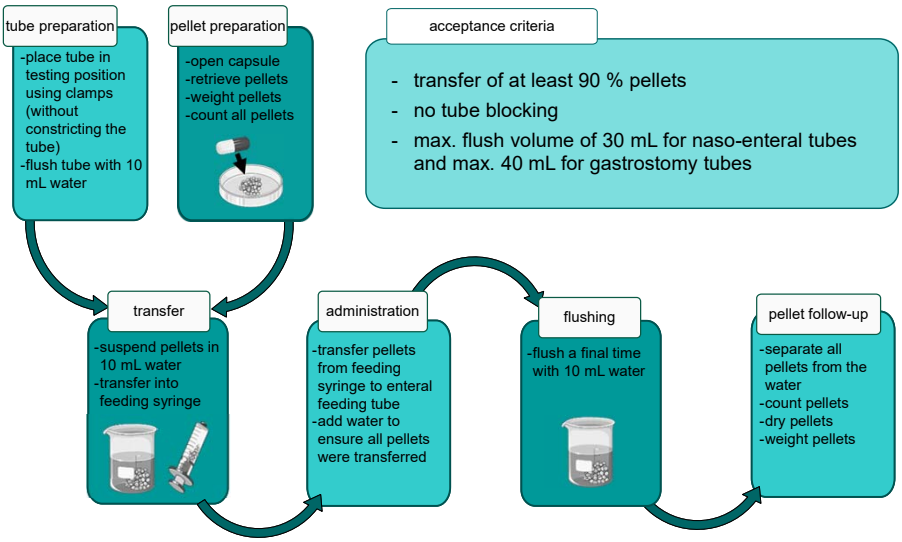
- B.Braun Nutritub® ENFit™ Intestinal CH 12, Length 125 cm → naso-enteral feeding tube CH 12
- Telelex Rüsch duodenal tube according to Levin, CH 16, used with added Freka® ENLock/ENFit Step Adapter → naso-enteral feeding tube CH 16

Percutane endoscopic gastrostomy (PEG) tubes:

- Nutricia Flocare® Gastrotube CH 14 → additional length gastrostomy tube CH 14
- Freka® Belly Button Comfort CH 14, used with added Freka® Button Extension Set 1 (angled extension) → low-profile gastrostomy tube CH 14



Procedure:



Results

Ease of administration

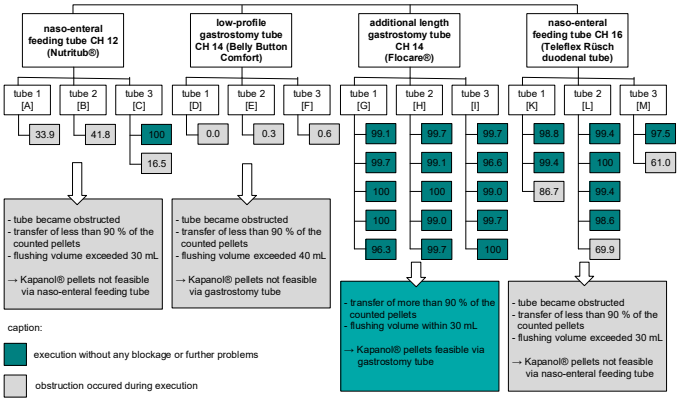
- tubes with ENFit™ connection or added step adapter: admitting finger pressure on syringe plunger was sufficient, pellets were transferred using frequent aspiration
- tubes who needed extensions as additionals (Freka® Belly Button Comfort CH 14) were difficult (extensions have reduced diameter)

Tube blocking

- Nutricia Flocare® Gastrotube CH 14 was only tube which did not occlude
- all other tubes became obstructed at various points in the study

Flushing volume (volume needed for transfer)

- determination possible for Nutricia Flocare® Gastrotube: 30 mL



Conclusion

1. Administration of *Kapanol*® in patients with low-profile gastrostomy tubes CH 14 cannot be recommended
2. Required amount of water for successful transferring is 30 mL
3. Results can be transferred to feeding tubes from different manufacturers only to a limited extend due to the heterogeneity of tube types and tube designs

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