

4CPS-116 THE EFFICIENCY AND COST-EFFECTIVENESS OF HEALTHCARE AND NUTRITIONAL INTERVENTIONS IN THE MANAGEMENT OF POST-STROKE OROPHARYNGEAL DYSPHAGIA, RESULTS OF A SYSTEMATIC REVIEW

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**Background and Importance** Post-stroke oropharyngeal dysphagia (PS-OD) causes significant high costs during hospitalisation that increase with the development of malnutrition and respiratory infections at long-term. This data suggests that the appropriate management of PS-OD including the use of early detection programmes, texture-modified diets, commercially thickened fluids, domiciliary enteral nutrition, and rehabilitation programmes including restorative treatments could lead to cost-effective reduction of clinical complications.<sup>1</sup>

**Aim and Objectives** To assess literature on the efficiency and cost-effectiveness of available healthcare interventions on the management of PS-OD.

**Material and Methods** Systematic review following PRISMA recommendations. MEDLINE, Embase, NHS-EED and CEA-Registry were searched up to 30 June 2021 to include studies on PS-OD. Outcomes of interest were the efficiency and the cost-effectiveness of healthcare interventions on the management of PS-OD. Economic evaluation studies were included. Oesophageal dysphagia and non-stroke studies were excluded.

**Results** 235 studies were identified and 10 included. Svendsen-*et-al* found lower hospitalisation costs (HC) (USD12,556 CI95% 9,751-15,361) when PS-OD was assessed during the first 24 hours after admission. Liu-*et-al* did not find differences in HC when PS-OD was assessed with the water swallowing vs volume-viscosity swallowing test if the water test failed. Schwartz-*et-al* found a non-significant reduction on HC (Australian dollars18,053 vs 16,548, p=0.722) using a protocol to manage OD after thrombolysis. Wilson *et-al* showed video fluoroscopy as the most cost-effective screening method compared to bedside evaluation and a combination of both. Khiaochaoen *et-al* and Suksathien *et-al* showed cost-effective rehabilitation programmes that included OD management. Pelczarska *et-al* showed that the use of texture-modified diets using a gum-based thickener (Nutilis Clear®) was cost-effective (PLN21,387-20,977 per QALY), and Kotecki *et-al* that commercially thickened fluids use was more efficient than *in situ* preparation. Elia *et-al* showed domiciliary enteral nutrition cost-effective (£12,817 per QALY) and Beavan-*et-al* showed higher nutrient intake and low HC increase using looped-nasogastric tube (5,20 sterling for every 1% increase).

**Conclusion and Relevance** Healthcare interventions to manage PS-OD with a positive clinical effect tend to be cost-effective. Future studies assessing the cost-effectiveness of applying compensatory and/or restorative strategies among with reporting cost-savings by appropriate PS-OD early evaluation and management are ne

#### REFERENCES

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Conflict of Interest No conflict of interest

4CPS-117 USE OF ERYTHROMYCIN AS PROKINETIC IN CRITICALLY HOSPITALISED PATIENTS

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**Background and Importance** Critically patients sometimes suffer from gastrointestinal disorders which are necessary to treat to improve clinical outcomes. Erythromycin is an antibiotic with prokinetic activity due to its agonist activity on motilin receptors, accelerating gastric emptying.

**Aim and Objectives** To evaluate the efficacy of intravenous erythromycin as a prokinetic in critically ill hospitalised patients.

**Material and Methods** Retrospective observational study in critically ill patients over a period of 12 months (04/2021-03/2022). Patient data were obtained using Farmasyt® and Orion Clinic® software: sex, age, weight, start and end date of treatment, dosage, clinical service, diagnosis, concomitant prokinetics (metoclopramide, dexamethenol) and clinical course. The efficacy of erythromycin use was assessed by the absence of symptoms such as abdominal distension, flatus and hydro aerial sounds or nausea.

**Results** 39 patients were studied, 64% were men and 36% women, with a mean age of 64 years and an average weight of 71 kilograms. 85% were in surgical intensive care unit, the rest in intensive care unit. All patients were prescribed erythromycin at doses of 250 milligrams every 8 hours, maintaining treatment for an average of 5 days. The diagnoses for which erythromycin was prescribed were: weak peristalsis in 13 patients, absent peristalsis in 18, intolerance to enteral nutrition in 6 patients, and upper gastrointestinal bleeding in 2. On the other hand, 39% of all patients had already been prescribed 10 mg of intravenous metoclopramide every 8 hours as a prokinetic prior to starting erythromycin, and this was maintained when treatment with the macrolide was initiated. In 41.5% of patients, metoclopramide was prescribed together with erythromycin. Erythromycin treatment was ending in 37 patients due to clinical improvement with resolution of abdominal distension, auscultation of peristalsis and presence of stool, in 1 patient due to tolerance to enteral nutrition and 1 patient died.

**Conclusion and Relevance** The use of erythromycin as a prokinetic in the population evaluated has been shown to be effective in improving intestinal motility. There was no difference between groups which were administered metoclopramide or not before or during the treatment with erythromycin. Given the variability observed, in terms of duration, concomitant prokinetics or indication, there is a need to establish a protocol for the use of erythromycin as a prokinetic.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

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