

Bucher's method. Delta value ( $\Delta$ , maximum difference as a clinical criterion of equivalence) was calculated according to the ETA guide<sup>1</sup>: use was made of half of the absolute risk reduction (ARR) obtained in the meta-analysis of RCTs included in the ITC (pooled ARR=20%;  $\Delta$ =10%).

### Results

Six clinical trials were found erenumab (n=3), fremanezumab (n=2), galcanezumab (n=1) and eptinezumab (n=0). One study of erenumab<sup>2</sup> and another of fremanezumab<sup>3</sup> were selected. The rest were not included in the ITC (non-compliance with the inclusion criteria). Trials included were three arm (control and two different drug regimens), double blind, placebo controlled RCTs. Results of the ITC are shown in table 1.

Abstract 4CPS-132 Table 1

Reduction of $\geq 50\%$ migraine days/month (ARR (95% CI))	Erenumab 70 mg	Erenumab 140 mg
Fremanezumab quarterly	3 (-7.56 to 13.56)	2 (-8.64 to 12.64)
Fremanezumab monthly	6 (-4.59 to 16.59)	5 (-5.66 to 15.66)

In all cases, there were no statistically significant differences; most 95% CI values were within the calculated delta margins.

**Conclusion and relevance** ITC showed no statistically significant differences in  $\geq 50\%$  reduction in migraine days/month between erenumab and fremanezumab. Probable clinical equivalence was found between erenumab and fremanezumab. These drugs could be considered ETA in CM. Further studies are necessary to include galcanezumab and eptinezumab in the ITC.

### REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-133

### IS PARACETAMOL A REAL ALTERNATIVE IN THE MANAGEMENT OF PATENT DUCTUS ARTERIOSUS IN PRETERM INFANTS?

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**Background and importance** Patent ductus arteriosus (PDA) is a common cause of morbidity and mortality in preterm infants. The treatment of choice is ibuprofen but contraindications and serious adverse events limits its use. Paracetamol has been proposed as an alternative to ibuprofen, with good results (80–95% efficacy) and apparently less side effects.

**Aim and objectives** To analyse the effectiveness and safety of intravenous paracetamol in the treatment of haemodynamically significant PDA (hsPDA).

**Material and methods** A retrospective cohort study of hospitalised infants was conducted in a level III neonatal intensive care unit between July 2013 and January 2019. Criteria inclusion: gestational age (GA)  $\leq 30$  weeks and treatment of hsPDA with paracetamol 15 mg/kg/6 hours (minimum 8 doses) after contraindication or ineffectiveness of ibuprofen. Closure was considered if the ductus was  $< 1$  mm and not significant. The need for post-paracetamol treatment was also analysed.

**Results** Fifty-four patients were included, with a median GA of  $26 \pm 1.8$  weeks and median birth weight of  $853 \pm 293$  g. In 14 patients, paracetamol was used as the first option and in 40 after ibuprofen (table 1). The overall closure rate was 37%. No adverse effects were reported during treatment.

**Conclusion and relevance** Our efficacy results were much lower than those published in most studies and case series. In our series, the overall efficacy of paracetamol was 37.0% and 40.5% if deceased patients were excluded from the analysis.

Well designed clinical trials are needed to help decide the role of paracetamol in the management of hsPDA as the results are very different depending on whether it is administered as the first choice (50.0% or 71.4% excluding the deceased) or after ibuprofen (32.4% or 34.3% excluding the deceased).

Abstract 4CPS-133 Table 1

Paracetamol	First option		Second option after ibuprofen		Overall
	Contraindication	Overall	Ineffectiveness	Contraindication	
Reason					All
Patients (n)	14	40	18	22	54
Closure (n)	7	13	3	10	20
Reopen (n)	2	3	0	3	5
No additional treatment required (n)	0	6	6	0	6
Additional treatment required (n)	7	21	10	11	28
Surgery (n)	1	16	9	7	17
Died (n)	7	5	0	5	12
Closure rate (%)	50.0	32.5	16.7	45.5	37.0
Closure rate+no additional treatment (%)	50.0	47.5	50.0	45.5	48.1
Closure rate (excluding deceased patients) (%)	71.4	34.3	16.7	52.9	40.5

## REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

#### 4CPS-134 PREVALENCE ANALYSIS OF PATIENTS TREATED WITH TRIPTANS AT RISK OF DEVELOPING MEDICATION OVERUSE HEADACHE AND DEVELOPMENT OF A PRESCRIPTION OPTIMISATION STRATEGY

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**Background and importance** Medication overdose headache (MOH) is a secondary headache disorder occurring on 15 or more days per month developing as a consequence of regular overdose of headache medication for more than 3 months.

The prevalence of MOH is approximately 1–2% and is higher in women than in men. Many medications used to treat headaches have the potential for causing MOH. Currently, MOH secondary to triptans is increasing and leads to MOH sooner than with other medications. Anxiety and depression may be risk factors for the evolution of migraine into MOH.

**Aim and objectives** To determine the prevalence of patients treated with triptans at risk of MOH (regular intake for  $\geq 10$  days/month for  $>3$  months) and the profile in our health area; to identify and communicate to the prescribers those patients with overuse of triptans; and to inform all clinicians about MOH: aetiology, clinical features, diagnosis and treatment.

**Material and methods** We analysed the dispensation records of all patients treated with triptans over 3 months (June 2019–September 2019). Data collected were sex, age, monthly intake frequency and co-medication. We alerted prescribers by email, including management and de-prescription recommendations for MOH. We posted content about MOH in our blog.

**Results** The prevalence of patients treated with triptans was 0.50%; 47 of 538 patients taking triptans (8.7%) were at risk of MOH. Their median age was 55 years and most were women (79%). Median monthly intake was 16 doses (10–48). Thirty patients (64%) had prescriptions for anxiety and/or depression and 13 patients (28%) had preventive therapy prescriptions for headache. Twenty-nine prescribers were notified by email. Dispensation record history, co-medication, MOH management guide and patient education leaflets were attached.

**Conclusion and relevance** MOH is a common problem in clinical practice that needs to be properly managed to increase the likelihood of successful chronic daily headache treatment. The results obtained in our population were similar to published studies, both in prevalence and in patient profile. However, the MOH rate was still lacking as it needs a clinician diagnosis. In 6 months we will collect information about the evolution of these patients, and we expect that our intervention will lead to treatment optimisation, better use of triptans and headache relief.

## REFERENCES AND/OR ACKNOWLEDGEMENTS

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#### 4CPS-135 PERPHENAZINE AND PROPRANOLOL POISONING: A CASE REPORT

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**Background and importance** The combination of perphenazine, a typical antipsychotic, with propranolol, a beta adrenergic antagonist, increases the concentrations of both drugs by pharmacokinetic interaction.<sup>1</sup> The main effect of the interaction is potentiation of the hypotensive effect. Typical antipsychotics have an anticholinergic and antihistamine effect that can cause drowsiness, but also have structural similarities with benzodiazepines.

**Aim and objectives** To describe the clinical case of a patient with drug poisoning and the interaction between perphenazine and propranolol and its haemodynamic and CNS depressant effects.

**Material and methods** The patient was a 64-year-old woman who was found at home by the emergency ambulance service with a Glasgow coma scale (GCS) score of 3. Anamnesis showed autolytic attempt. Home treatment was letrozole 2.5 mg every 24 hours orally, perphenazine 8 mg every 12 hours orally, losartan 50 mg/hydrochlorothiazide 12.5 mg every 24 hours orally, propranolol 10 mg every 6 hours orally and paracetamol 325 mg/tramadol 37.5 mg every 8 hours orally.

During transfer to hospital, flumazenil 1 mg was administered intravenously (IV) and GCS changed to 9–10. The patient was admitted to the intensive care unit due to a decreased level of consciousness and haemodynamic instability. Drug tests (toxicology screens) on blood and urine were requested. Endotracheal intubation and gastric lavage were performed. Pinkish content came out and it was thought to be traces of propranolol tablets.

For haemodynamic control, dobutamine was administered at 5  $\mu$ g/kg/min IV perfusion and antidotes to possible pharmacological intoxication were given: glucagon was administered at 0.03 mg/kg/hour perfusion IV (beta blockers), flumazenil bolus 1 mg IV (benzodiazepines) and naloxone 0.4 mg bolus IV (opioids).

**Results** Drug tests showed positive urine and blood levels of 84.1 g/L for benzodiazepines. In the anamnesis she did not take benzodiazepines. Dobutamine, glucagon and naloxone were stopped because of the test results and haemodynamic improvement. Flumazenil 1 mg bolus IV was administered again and an infusion of flumazenil was started at 0.5 mg/hour IV until the level of consciousness was regained and the patient answered verbal orders on what happened 4 hours later.

**Conclusion and relevance** Perphenazine can produce possible false positives for benzodiazepines. The interaction between perphenazine and propranolol can trigger haemodynamic instability and CNS depression, which can be successfully managed with dobutamine, glucagon and flumazenil.

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No conflict of interest.