3PC-062 ABSTRACT WITHDRAWN

3PC-063 GALENIC PREPARATION OF 40% DEXTROSE GEL: NEW APPROACH TO MANAGEMENT OF NEONATAL HYPOGLYCAEMIA

M Rivano*, C Veneziano, G Longobardo, M Albrecht. *IRCCS Ospedale San Raffaele, Pharmacy, Milan, Italy*

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Background Neonatal hypoglycaemia is a condition in which the amount of blood glucose is lower than <45 mg/dl. Transiently low blood glucose levels are physiologic and occur during the establishment of postnatal glucose homeostasis. Nevertheless, severe prolonged hypoglycaemia is associated with brain injury and poor neurodevelopmental outcome. Preterm, small for gestational age infants, infants of diabetic mothers and large for gestational age infants are at high risk. Diagnosis is suspected empirically and is confirmed by glucose testing. There are several treatment options available for the management of neonatal hypoglycaemia: breast-milk, infant formula, intravenous (IV) or oral dextrose therapy. The neonatal care unit asked the pharmacy for collaboration in the galenic preparation of 40% dextrose gel for the treatment of neonatal hypoglycaemia.

Purpose The objective of this work is the preparation of a galenic formulation in order to develop a safe and effective treatment for the management of hypoglycaemia in newborns.

Material and methods A systematic literature review concerning dextrose gel preparation was conducted and the pharmacy service developed a procedure for the galenic formulation. The preparation consists of a glucose gel solution and carboxymethylcellulose. The obtained gel was divided into sterile snteral feeding syringes with a female connector.

Results In our hospital, in the first semester of 2018, 30 newborn infants had hypoglicaemia. Fifteen received intravenous dextrose therapy and six babies were given breastmilk or formula by syringe. Nine infants were treated with dextrose gel 5 ml/Kg massaged into the buccal mucosa. Only one patient with severe hypoglicaemia (26 mg/dl) received additional intravenous dextrose.

Conclusion Dextrose gel formulation prepared by the pharmacy service responded to the needs of the neonatal care unit. This preparation has been recommended for the management of neonatal hypoglycaemia and reduced the admission to the newborn intensive care unit for intravenous glucose. Our findings show that treatment with 40% dextrose gel is effective in the management of hypoglycaemia and does not adversely affect breastfeeding.

REFERENCE AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

3PC-064 FEEDBACK FROM LEAN MANAGEMENT IN A STERILISATION UNIT

[1]H Roux*, [1]J Cantoni, [1]MP Ponrouch, [1]B Thaunay, [1]A Giraudo, [1]A Nguyen, [2]A Jalabert. *[1]Service de Stérilisation Centrale, Centre Hospitalier Universitaire de Montpellier, Montpellier, France; [2]Service de Pharmacie, Centre Hospitalier de Montpellier, Montpellier, France*

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Background Lean management aims to improve the performance of a company through the involvement of employees. It makes it possible to find the ideal conditions of functioning by optimising staff, equipment and sites, to add value with the least waste possible. The sterilisation activity is a production activity, which can be managed by lean management.

Purpose The objectives are to schedule and optimize the recomposition flow, to redistribute resources, to pool skills and to prioritise emergencies.
Material and methods A management engineer was assigned to help the sterilisation unit's team to implement this project. After observation of the sterilisation activity and analysis of production data of the different surgical specialties resulting from the traceability software of the unit, an exercise in setting up a new organisation was carried out with all the agents. An interest in the use of Kanban to smooth the flow was demonstrated during these exercises.
Results A redevelopment of the conditioning area was produced to limit movements. Islands of recomposition previously specific to a surgical unit, were redefined. The configuration of the conditioning area made it possible to create three production lines. To create three equivalent flows, the specialties were grouped according to their volumetrics and the complexity of the operating trays (OT). Each of the three resulting flows contained two blocks, and represented an activity of 2500 OT/month.

Kanban labels were deposited on the OT in the washing zone, so the OT were handled in the conditioning area in order of arrival, according to the 'First-In, First-Out' principle.

The restitution delay of the OT to surgical specialties decreased from 44 hours to 30 hours. The percentage of OT returned within the contractual deadlines increased from 72% to 85%.
Conclusion The reorganisation of the sterilisation unit began on 16 July 2018. We can conclude that there was an improvement in productivity in terms of scheduling, fluidity and availability, reduction in the production pressure, redefinition of the true urgency, development of the concept of self-help and an increase in versatility through training. The project was presented to the general management of the University Hospital Centre in September 2018. A re-evaluation in 6 months is planned.

REFERENCES AND/OR ACKNOWLEDGEMENTS
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3PC-065 ORODISPERSIBLE FILMS – AN INTERESTING DOSAGE FORM!

S Sauer*, L Kohl, L Veitinger, V Zink, T Hoppe-Tichy. *University Hospital Heidelberg, Pharmacy Department, Heidelberg, Germany*

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Background Orodispersible films (ODF)are described in the European Pharmacopoeia. However only a few ODF products are on the market, of which most are not medicines. ODFs provide an alternative formulation for those with swallowing difficulties, for example, paediatric and geriatric patients. An advantage of this formulation is that when they come into contact with water they become sticky, making it difficult to spit out.
Purpose The aim was to develop a basis formulation of ODF. The formulation at the beginning of the manufacturing process should be fluid enough for pouring, but then solidify quickly. The resulting ODFs also should dissolve fast on contact with water and maintain good mechanical strength in handling.
Material and methods Three different solutions were created, consisting of water, glycerol and hypromellose (HM), differing in the hypromellose content of: solution I with 3% HM, solution II with 4% HM and solution III with 5% HM.

Prepared solutions were degassed by ultrasound and films were formed with the help of a film-layering machine. All were dried at room temperature.

The dried films were then cut into pieces of 4 cm^2 with a scalpel and the backing film removed. The taste was tested and the dissolution observed. Consequently, a piece of the film was placed in a dish with 20 ml of distilled water, every 10 s the dish was slightly agitated and the time to dissolution recorded.
Results Solutions were found to be easy to process: solution III was almost too viscous.

After drying, all films were found to be clear and even. Solution I was found to be quite sticky on the surface. All were easy to peel off from the backing film. All were found to be tear-resistant enough to handle.

All films tasted sweet, were sticky in the mouth and subsequently unable to be spat out. All dissolved within about 4 min.

Solution II was found to be the optimal formulation.
Conclusion ODFs are very interesting and could extend the spectrum of dosage forms. In the future, further variants in composition will be investigated and drugs will be incorporated.

REFERENCES AND/OR ACKNOWLEDGEMENTS
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3PC-066 PT-SMELL TEST: A NOVEL HOSPITAL COMPOUNDING AND ITS CLINICAL VALIDATION TO DIAGNOSE OLFACTORY DYSFUNCTION

[1]C Tovar Chaves*, [2]J Marto, [3]M Santos, [4]F Duarte-Ramos, [5]R Bronze, [3]L Antunes, [6]A Alcobia, [2]H Ribeiro. *[1]Faculdade de Farmácia, Universidade de Lisboa, Lisbon, Portugal; [2]Research Institute for Medicine and Pharmaceutical Science iMED.ULisboa, Faculdade de Farmácia- Universidade de Lisboa, Lisbon, Portugal; [3]Hospital Garcia de Orta- E.P.E., Serviço de Otorrinolaringologia, Almada, Portugal; [4]Faculdade de Farmácia da Universidade de Lisboa, Departamento de Sócio-Farmácia, Lisbon, Portugal; [5]IBET, Apartado 12- 2781–901, Oeiras, Portugal; [6]Hospital Garcia de Orta- E.P.E., Serviços Farmacêuticos, Almada, Portugal*

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Background The assessment of olfactory dysfunction, partial or total anosmia, is very important in the early diagnosis of neurodegenerative diseases. This diagnosis is difficult because it depends on the cultural habits of each population and in Portugal there is no test adapted to its population.
Purpose The aim of this study was the development of a Portuguese kit (PT-smell test) to assess olfactory dysfunctions. Thus, several compounded formulations adapted to the Portuguese population were developed, characterised and clinically validated.
Material and methods The PT-smell test was developed based on the results of the perception characterisation study, performed through a national cross-sectional survey, which allows the identification of Portuguese fragrances. Thus, different PEG-based formulations were developed and structure characterisation was performed using rheology, differential scanning calorimetry, microscopy, fragrance identification and stability tests.