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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No conflict of interest.

3PC-066 ORODISPERSEABLE FILMS – AN INTERESTING DOSAGE FORM!

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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 cm² 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 spit 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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No conflict of interest.

3PC-066 PT-SMELL TEST: A NOVEL HOSPITAL COMPOUNDING AND ITS CLINICAL VALIDATION TO DIAGNOSE OLFATORY DYSFUNCTION

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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.
The olfactory performance of 27 patients presenting with olfactory disorders and 25 healthy controls were evaluated with the PT-smell test and Barcelona smell test, as the reference diagnostic test.

**Results** A kit of 23 formulations containing polyethylene glycol 1500 and 400 (50:50) and 23 odours presented semisolid behaviour, a non-crystal structure and the fragrance’s volatile ingredients remained stable for 6 months when packed in amber glass flasks.

Concerning the clinical study, the results obtained show no gender difference (p>0.05) between the two groups, although the mean age of the control group (39.03±12.91 years) is statistically different (p=0.0035) from the patient group (50.62±18.76 years). The PT-smell test is a reliable method for assessing human olfaction with good correlation to the Barcelona smell test ($r^2=0.9214$). A limit for hyposmia has been determined, a score of 71.14% for forced choice identification.

**Conclusion** The PT-smell test could be used as a reliable screening method and also used as an olfactory threshold test and as an olfactory training kit.

Additionally, this study was characterised by its multidisciplinary aspect. Doctors and pharmacists have worked towards a common goal, improving the well-being of the patient. Interinstitutional collaboration between public hospitals and colleges should be improved and encouraged by the Ministry of Health and Governments in order to rationalise human and financial resources.

**REFERENCES AND/OR ACKNOWLEDGEMENTS**

No conflict of interest.