samples. An important increase in the number of isoforms even with changes in their masses, including the main isoform, was detected.

Conclusion and relevance Exposure to light may cause modifications in the nivolumab isoform profile which suggests protein degradation. This work shows the importance of protecting opened vials of the medicine Opdivo from light (and by extension, bags for infusion) when they are at room temperature (up to 25°C).

REFERENCES AND/OR ACKNOWLEDGEMENTS

Funded by project FIS: PI-17/00547 (Instituto Carlos III, Spain), which means that it was also partially supported by European Regional Development Funds.

AT-L is currently receiving an FPU predoctoral grant (reference FPU18/03131) from the Ministry of Universities, Spain.

Conflict of interest No conflict of interest

**3PC-066**

**COMPOUNDING AN EYE DROP FORMULATION OF TOPICAL INSULIN FOR CORNEAL DEFECTS REFRACTORY TO PREVIOUS TREATMENT: EXPERIENCE IN REAL CLINICAL PRACTICE**

MD Alvarado Fernandez, O Montero Pérez, I García Giménez, A Peláez Bejarano*, MA Robustillo Cortés, Hospital Juan Ramón Jiménez, Pharmacy Service, Huelva, Spain

10.1136/ehjpharm-2021-eahpconf.41

Background and importance Recent studies suggest the use of topical insulin on the ocular surface to accelerate cicatrisation of corneal lesions in diverse ocular pathologies, such as post-operative corneal epithelial erosion, neurotrophic keratitis and refractory corneal ulcers. However, its use has not been extended into real clinical practice.

Aim and objectives To describe an eye drop formulation of insulin 1 UI/mL for use in corneal defects refractory to previous treatment, and to evaluate its possible application in regular practice.

Material and methods A bibliographical search was performed in Pubmed using the following keywords: topical insulin, corneal ulcers and epithelial defects refractory; 9 results were found. Five references were selected with the most recent publication dates (2017–2020).

The pharmacy and ophthalmology departments reached an agreement to compound an eye drop formulation of topical insulin 1 UI/mL. The preparation was carried out in the pharmacy department in a horizontal laminar flow cabinet following an aseptic compounding technique using regular insulin (100 UI/mL) and artificial tears with a polyethylene glycol base. The dilution was then filtered and packaged in light protected eye drop bottles. The risk matrix of sterile preparations of the pharmacy department financial resources, and to conduct uniformity of mass and stability studies of compounding.

Material and methods The first step was to measure the volume of a tablet of Jakavi 20 mg to calculate the amount of starch needed to produce 100 capsule size 3 (0.30 mL) ruxolitinib 5 mg. For each batch of 200 capsules, 50 tablets of Jakavi 20 mg and 6 mg of starch were used; 80 samples were allocated to conduct uniformity of mass single dose preparations and stability studies. For the stability test, three samples of 20 capsules for each one, in amber glass bottles were prepared. Every month, ruxolitinib concentrations were determined by reverse phase HPLC.

Results In total, 102 packs of ruxolitinib 20 mg were purchased, instead of 408 packs of ruxolitinib 5 mg. Uniformity of mass studies demonstrated that no more than two of the individual capsule mass deviations from the average mass by more than 10% and none deviated more than twice that percentage. Regarding the stability test, the first 6 months of data showed that the percentage of ruxolitinib has not changed significantly. Therefore, all the aims of the study were achieved.
LONG TERM STABILITY OF CO-ADMINISTRATION OF BUMETANIDE AND SCOPOLAMINE FOR THE PALLIATIVE CARE UNIT

1E Catry, 1M Coloulou, 1M Closet, 1H Hubert, 1S Soumoy*, 1P Bihin, 4J Jamart, 4D Hecq, 4L Galanti, 1Université Catholique De Louvain-Chu Ucl Namur, Department of Laboratory Medicine, Yvoir, Belgium; 2Université Catholique De Louvain-Chu Ucl Namur, Department of Pharmacy, Yvoir, Belgium; 3Université Catholique De Louvain-Chu Ucl Namur, Scientific Support Unit, Yvoir, Belgium; 4Université Catholique De Louvain-Chu Ucl Namur, Drug Stability Research Group, Yvoir, Belgium

Background and importance Death rattle occurs in 25–90% of dying patients and is often associated with pulmonary fluid overload. Co-administration of scopolamine (anticholinergic drug) and bumetanide (loop diuretic) could be used to avoid unnecessary fluid overload at the end stage of life.

Aim and objectives The study aimed to investigate the physical and chemical stabilities of the admixture bumetanide and scopolamine, prepared in advance, by a centralised intravenous additive service (CIVAS) in the hospital pharmacy.

Material and methods Stability of minimal (min) concentration was evaluated for five polypropylene syringes of 48 mL containing the admixture bumetanide (Burinex 2 mg/4 mL, Leo, Belgium) and scopolamine (0.25 mg/mL, Sterop, Belgium) at 41.67 µg/mL and 5.21 µg/mL, respectively. The maximal (max) concentration with 125 µg/mL of bumetanide and 31.25 µg/mL of scopolamine was evaluated for five polypropylene syringes of 14 mL. All syringes were stored for 18 days at 5±3°C. Periodic samples were visually and microscopically examined to observe any particle appearance or colour change. pH and absorbance at three wavelengths (350, 410 and 550 nm) were monitored. The concentrations were measured by ultra-high performance liquid chromatography–photodiode array detection.

Results Over 18 days, there was no change in colour or appearance of opacity, turbidity or precipitation, and the pH remained stable. The relative concentrations of bumetanide and scopolamine at min and max concentrations after 18 days were unchanged, with 100.1% and 100.3% of the initial content of bumetanide and with 99.2% and 99.4% of the initial content of scopolamine. The lower limits of the 90% CI on the means of both molecules at min and max concentrations remained higher than the 90% threshold that considers the mixture to be chemically stable.

Conclusion and relevance The study is the first to show that the admixture of bumetanide and scopolamine is physically and chemically stable at two concentrations used in the palliative care unit. This combination, available in polypropylene syringes, has numerous advantages (eg, preparation under aseptic conditions by a CIVAS with decreased workload and preparation errors).

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest


A21