REFERENCES AND/OR ACKNOWLEDGEMENTS

1. Anderson J, Young S, Cockerham G, *et al. Evidence Brief: Intracameral Moxifloxacin for Prevention of Endophthalmitis After Cataract Surgery*. Washington, DC: Department of Veterans Affairs (US); 2022 May. Available from: https://www.ncbi.nlm.nih.gov/books/NBK581595/
2. Ministerio de Sanidad. Guía de buenas prácticas en la administración de medicamentos en servicios de farmacia hospitalaria [Internet]. 2014. Available from: http://www.sefh.es/sefhpdfs/GuiaBPP_JUNIO_2014_VF.pdf

Conflict of Interest No conflict of interest.

3PC-017 ELABORATION OF DEFEROXAMINE EMULSION 0.5% FOR HYPERPIGMENTATION DUE TO INTRAVENOUS IRON EXTRAVASATION

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Background and Importance Cutaneous hyperpigmentation due to iron extravasation is a described adverse effect of its intravenous administration.

Aim and Objectives To describe the components and method of preparation of a 0.5% deferoxamine emulsion for the treatment of hyperpigmentation caused by iron extravasation. To describe the efficacy and tolerance of the pharmaceutical compound on a hospitalised patient.

Material and Methods Literature research was carried out in different databases to determine the clinical evidence and experience. (Google Scholar, PubMed, SEFH formulary, Acofarma website).

In order to assess efficacy and tolerance, direct observation of the stain was performed twice a week for 30 days. Possible colour change, and skin irritation were compared with photographs and interviewing the patient.

Results Composition: deferoxamine 0.5g (commercially available lyophilised powder), propylene glycol 20g; NeoPCL self-emulsifier O/W 25g and purified water in sufficient quantity for 100g. In contrast to the available evidence, Beeler base was not used. Instead, NeoPCL was chosen, which allowed the formation of an aqueous external phase emulsion, not very oily, dense, but easy to apply topically.

Methodology

- Deferoxamine-liophilised was reconstituted with purified water.
- Water, propylene glycol and NeoPCL were weighed separately and placed in a waterbath at 60°C.
- NeoPCL was stirred to facilitate the fusion and propylene glycol was gradually added while stirring to form the oleo-aqueous emulsion.
- Deferoxamine solution was added over the previous mixture, stirring constantly until obtaining the oleo-aqueous emulsion.
- It was stirred for 2–3 minutes with an emulsifier.

The final appearance of PhC was a homogeneous white emulsion with no lumps and no characteristic odour. According to the local Guide of Good Practices, a 30-day expiration period was assigned as well as storage conditions of room temperature and proception from light. Galenic validation was performed, and the emulsion did not lose the characteristics described.

Fifteen days after the extravasation, the emulsion was applied every 12 hours for four weeks. A slight improvement was observed. However, there was complete tolerance to emulsion with no adverse reactions reported.

Conclusion and Relevance The development of the emulsion with a self-emulsifying O/W base ensured that the emulsion remained stable throughout the shelf life.

The results did not match with those described in the literature. Time was a limiting factor to have observed better results.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest.

3PC-018 GLASS AMPOULE HANDLING PRACTICES IN DUTCH HEALTHCARE: A COMPREHENSIVE ASSESSMENT

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Background and Importance Glass ampoules are extensively used for intravenous administration, pulmonary nebulisation, and oral preparations such as caffeine. Dutch guidelines recommend filter needles or straws when handling glass ampoules,[1] but compliance remains uncertain.

Aim and Objectives This study aimed to evaluate the utilisation of filter needles/straws, the observation of glass particles, and the disposal of ampoules among pharmacy technicians and nurses. Additionally, we examined the handling of glass ampoules during medication procurement in hospital pharmacies.

Material and Methods We employed an observational approach with a questionnaire developed by Utrecht University's UPPER pharmacy practice research section. The questionnaire covered glass particle management and procurement policies. Pharmacy students conducted interviews with pharmacy technicians (both in the pharmacy and on hospital wards) nurses and pharmacists, during their internships from September to November 2022. Descriptive data analysis was used.

Results Data were gathered from 31 Dutch hospitals, comprising six academic, 15 top clinical, and 10 peripheral institutions. Interviews were conducted with 50 pharmacy technicians in the pharmacy, 51 on the wards, and 50 nurses.

Concerning compounding, 14% of hospitals did not employ filtering techniques, except for intrathecal preparations. On hospital wards, 23% of pharmacy technicians did not employ filtering techniques, rising to 50% for nurses (irregular use).

The results revealed that 82% of pharmacy technicians in the pharmacy encountered glass particles during compounding, rising to 92% on wards and 45% for nurses. In terms of ampoule disposal, approximately 16% of pharmacy technicians in the pharmacy reported discarding ampoules due to the presence of glass particles, compared to 19% on wards and 20% among nurses. Only nine hospital pharmacies had established policies aimed at reducing the procurement of glass ampoules.

Conclusion and Relevance The study highlights the variability in the adoption of filtering techniques for glass ampoules across different hospitals, with hospital pharmacies demonstrating better compliance. Both pharmacy technicians and nurses observed glass particles, leading to ampoule disposal. Future studies should investigate the causes of disparities between pharmacy departments and hospital wards. Additionally, further research is needed to assess potential health consequences of glass particle exposure.

REFERENCES AND/OR ACKNOWLEDGEMENTS

1. KNMP. LNA-procedures. [Internet]. Available from: https://kennisbank-knmp-nl.proxy.library.uu.nl/article/LNA-procedures_productzorg/asep/F114.html. [Accessed 31^{5}August 2023].

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3PC-019 DEVELOPMENT OF A TOPICAL EMULSION FOR THE TREATMENT OF THIRD-DEGREE BURN PATIENT CANDIDATES FOR SKIN GRAFT

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Background and Importance A third-degree burn (TDB) destroys the epidermis and dermis presenting a high risk of infection. These lesions are treated with skin grafts (SK) in the absence of infection.

Aim and Objectives The hospital pharmacist was asked to develop a non-irritating, antibacterial, easily spreadable and removable topical emulsion formula specific to prepare the burned tissue for SK.

The aim is to describe effectiveness and tolerance of topical magistral formula emulsion.

Material and Methods A scientific literature search was conducted.

Galenic development and validation of the formula were described in the monograph 'Semi-solid preparations for cutaneous application' of the Official Pharmacopoeia of the Italian Republic.

The efficacy of the formulation was evaluated by the physician.

A retrospective observational analysis was performed. Patients with TDB who were eligible for SK in 2022–2023 are being evaluated. The variables collected were: duration of treatment, dosage, clinical response and adverse effects.

Results We have formulated Oil-in-water emulsions. The main components are:

- C15–20–acid-PEG-8–ester-12%, hydrophilic-lipophilic balance 12, emulsifier, non-toxic for skin enzymes, suitable for the most sensitive skin, and the most histophilic of known emulsifiers.
- Squalane-7%, a texturiser, creates a film that protects the skin by delaying the loss of trans- epidermal water and improves the spreadability of the product.
- Sebopessina –2%, active principle for sebaceous secretion problems because burned skin has blisters.
- Silicone oil improves –0.3% the application and absorption of creams. The favourable environment, created by occlusion-hydration, the formation of hypertrophic scars is prevented.
- Cerium nitrate –2% combined with silver sulfadiazine-0.3% to provide broad antibacterial activity, forms a temporary barrier and promotes re-epithelialisation.

A shelf life of 30 days has been established, based on the critical skin lesion. Odour, colour and phase separation remained stable over the month. Spreadability and emulsion removal were excellent. Fifteen patients were treated; 100% responded well to treatment after an average of 2 weeks and a dosing frequency of 3 times a day. The physician confirmed good delimitation and absence of infections in the burnt areas that will receive the SK. No adverse reactions were reported.

Conclusion and Relevance The galenic emulsion described is a good therapeutic solution in patients with TDB who are candidates for SK.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest.

3PC-020 PREVENTION OF INFECTIOUS RISK IN PATIENTS TREATED WITH TUMOUR NECROSIS FACTOR ALPHA INHIBITORS (ANTI-TNFα)

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Background and Importance Tumour necrosis factor alpha inhibitors (anti-TNFα) have become a common treatment in many diseases, but they can increase susceptibility to infectious diseases, including tuberculosis.

Aim and Objectives Evaluate the analysis record and vaccination schedules in patients with anti-TNFα treatment in our hospital.

Material and Methods We have reviewed clinic history of all outpatients of the Pharmacy Service in a regional hospital who are currently administering subcutaneous anti-TNF (adalimumab, certolizumab, golimumab and etanercept). The informatics programs Farho and HCl are used to review if tuberculin test or Quantiferon assay, recommended vaccination schedule by the Prevention Service of the hospital and hepatitis serology have been requested (hepatitis B virus (HBV), hepatitis C virus (HCV) and hepatitis A (HAV)).

Results 147 patients with anti-TNFα have been analysed, with a mean age of 49 years (14–84), of which 53% (n=78) are men. 18.37% (n=27) had rheumatoid arthritis, 15.65% (n=23) psoriasis, 14.97% (n=22) psoriatic arthritis, 10.20% (n=15) ankylosing spondylitis, 19.05% (n=28) other spondyloarthropathies, 1.36% (n=2) juvenile idiopathic arthritis, 17.01% (n=25) inflammatory bowel disease, and 3.40% (n=5) others. Tuberculin/quantiferon testing was completed in 87.07% of patients; 12.50% of them were positive and received isoniazid for 9 months. Serological markers have been recorded in 93.20% and 91.16% of patients for HBV and HCV respectively, all of which were negative. 41.50% of the patients received four doses of HBV vaccine, because they presented anti-HBs <10 mUl/ml. 10.88% of the total patients received two doses of the HAV vaccine with an interval of 6 months. 81.63% of patients were vaccinated with the pneumococcal vaccine. 51.02% of patients have received the flu vaccine annually.