

Background Skin tests have an important place in the diagnosis of hypersensitivity. Because of a lack of precise skin tests procedures, drug skin tests are often not carried out. However, they could help to determine the cause of hypersensitivity and help in the choice of therapeutic strategy. In our hospital, a dermatologist required us to produce skin tests with cytotoxic and anti-HER2 antibody agents (docetaxel, pertuzumab, trastuzumab) in order to evaluate the hypersensitivity of a patient who developed a photosensitive dermatosis after a second cycle of chemotherapy.

Purpose The aim of this project was to produce a feasibility study for the production of skin tests with these three molecules.

Material and methods A literature review was performed to find data about skin tests, and more particularly about safety and non-irritant drug concentrations. Because of a lack of data, we also decided to realise an investigation near the others hospital centres. Chemical tests were carried out such as the measure of the drug pH and the miscibility between the diluant and the medicine.

Results According to the literature, the pH drug must be between 6 and 9 to avoid skin injuries. By its acidic pH, docetaxel could not be used to produce a patch test (non-diluted drug pH=3, diluted with 0.9 per cent sodium chloride drug pH=4). The pH of the two other agents and of the diluant was acceptable (pH=7). In most of the publications, the excipient used for the preparation of patch tests was petroleum jelly. In cooperation with the doctor, we decided to produce a prick test with docetaxel, prepared by diluting the drug to 5 mg/ml in an aqueous solution of 0.9% sodium chloride. Concerning pertuzumab and trastuzumab, patch tests were obtained by realizing an homogeneous preparation, with a concentration of 30% in petrolatum.

Conclusion The literature deals mainly with a platinum agent, and more often with skin prick tests and intradermal tests. We were confronted with the difficulty of possessing poor data when facing the request of the dermatologist. Moreover, according to the literature, patch tests commonly reveal false negative results. This activity necessitates the development of a local thesaurus and an economic study.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

3PC-056

PERFORMANCE ANALYSIS OF A FULLY AUTOMATED ONCOLOGY PHARMACY PRODUCTION: A 2018 UPDATE

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10.1136/ejhpharm-2019-eahpconf.137

Background The aseptic compounding of injectable antitubercular drugs is centralised in the oncology pharmacy and, since 2014, is performed by using a fully automated platform that enables control of the whole production process. The platform comprises a robotic system for fully automated preparation (APOTECACHemo), a supporting device for manual compounding (APOTECAPs) and a workflow management software (APOTECAManager). The production is mainly just-in-time (80% outpatient and 20% inpatient) and performed in a Class C cleanroom by seven pharmacy technicians and two

pharmacists. The daily working time is from 8 am to 4 pm (Monday–Friday).

Purpose The aim of this study was to analyse the performances of the fully automated oncology pharmacy production.

Material and methods The performances were analysed by means of the statistical tool of the APOTECA platform over a period of 9 months (January–September 2018). Productivity, dosage accuracy, precision and turnaround time were measured and compared between automated preparation with APOTECACHemo and manual preparation supported by APOTECAPs.

Results Overall, 18 524 preparations (62.6% infusion bags, 26.3% syringes, 11.1% elastomeric pumps) were compounded with APOTECACHemo and 5272 preparations (52.3% infusion bags, 46.8% syringes, 0.9% elastomeric pumps) with APOTECAPs. In total, 82 different active ingredients were processed. Regarding dosage accuracy, APOTECACHemo showed better performances, with 96.6% of preparation with a deviation of $\pm 5\%$ versus 93.0% of the manual compounding. Less than 1% of preparations presented a drug error exceeding 10%. The turnaround time, calculated from the prescription time to the delivery time, was similar for both procedures. The average output amounts to 13.2 preparations/hour for APOTECACHemo and 15.0 preparations/hour for APOTECAPs.

Conclusion The utilisation of the fully automated platform for managing the oncology pharmacy activities guarantees the possibility of measuring and controlling every single step of the whole production process. In-process controls, such as gravimetric control, barcode and photographic recognition, allow prompt corrective action in the case of deviations.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

3PC-057

ECONOMIC IMPACT AFTER THE IMPLEMENTATION OF A RISK MATRIX IN THE PREPARATION OF CHEMOTHERAPY

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10.1136/ejhpharm-2019-eahpconf.138

Background National Guide of Good Preparation Practice for Medicinal Products in Hospital Pharmacy Departments (HPD) (2014) recommends the use of a risk matrix (RM) to assess the risks during the preparation and ensure the quality of the finished product. The RM evaluates several topics: preparation process, administration route, safety profile, number of preparations per batch and microbiological contamination susceptibility.

According to the level of risk assigned by the RM, storing conditions and expiry dates for each preparation may change from labelled information and extended stability studies. Thus, in most cases, after implementing a RM in the preparation of medication at the HPD, there is a shorter in-use expiry date both for the final product and for the vial leftovers. Shorter expiry dates could lead to a greater waste of product, and therefore, greater economic losses.

Purpose We aim to evaluate the economic impact in the preparation of chemotherapy after implementing the RM in our pharmacy.

Material and methods Prospective observational study.