Editorial

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Pharmaceutical Technology to Improve Patient Care

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This last issue of the year gathers papers which are from the pharmaceutical technology field but do have a potential impact on patient care as it is mostly the case for PTHP papers. As Editor-in-Chief of the journal, I would like to specially put the emphasis on this point. In fact, as pharmacists in our hospitals, we are not working with technology for itself. We always have the patients' needs in mind and this is what justifies this research performed in the technology field. That is what this December issue demonstrates.

The first paper was submitted by Ralph van Wezel and Anne Drost-Wijnne from Catharina Hospital in Eindhoven, Netherlands. It describes a water-cascade process used to sterilize prefilled syringes. This is one of the important steps to allow the centralized preparation of prefilled syringes in hospital pharmacies. After sterilization by steam and water-cascade process, the closer integrity and the stopper movement were determined. The proof of concept of this sterilization process was demonstrated. Now, further stability experiments are needed and the process has to be validated with a full batch of syringes. This study will undoubtedly have consequences for the work organisation in batch syringes for in-advance preparations in pharmacies. This will enhance the safety of prepared drugs for patients and will be in line with the European resolution CM/Res (2016)2 on good reconstitution practices in health care establishments.

The second paper is from Nelly Lonca, based in Nîmes France at the University Hospital, in collaboration with the UMR 5253 research team at the University of Montpellier, also in France. This study is an example of an HPLC method validation for batch quality control after compounding of hard capsules. The method has been validated as stability indicating with the detection of degradation products by forced degradation. It also

describes the degradation of the active drug in the HPLC automatic injector after dissolution over 12 hours, which has not often been studied in stability experiments. This paper is a good example of a validated method for solid-dosage-form stability studies.

The third paper was submitted by the team of Valérie Sautou in Clermont-Ferrand, France. This research was performed in the University Hospital in collaboration with a university research team UMR CNRS 6296. The study describes the validation of an analytical method able to detect 5 water-soluble vitamins (namely vitamin C, B3, B6, B9, B12) by studying their photodegradation. The method is also stability indicating. The authors state that it could be adapted to detect other vitamins such as thiamins. We hope that a derived method will be validated for total parenteral nutrition (TPN) preparations in order to assess the stability of vitamins.

The fourth paper was submitted by Thomas Briot from the University Hospital of Angers. This is a study on ceftazidime eye drops after a change of its formulation. In fact each change of formulation should end up with a stability study because even light modifications can have an impact on the degradation of the active drug or its interaction with the container. This study shows that the eye drop solution remains stable after removal of the parabens, which is an important point for the long term tolerance and safety of this drug product.

The last paper is an opinion paper describing the experience of implementing a quality insurance system in the field of intradermal drug tests prescribed by the immunology department for hypersensitivity and allergy determination. This activity was multiplied by factor 3 in 10 years in the University Hospital of Nancy. A strong collaboration between the pharmacy department and the clinical wards has been set-up. This allows a well-organized diagnostic activity performed by the pharmacy, which is important in allowing the clinicians to make good therapeutic decisions.

Those papers illustrate the impact of pharmaceutical technology on clinical care. They emphasise the necessary collaboration between pharmacy and the clinics and also make it obvious that there is no clear separation

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between clinical pharmacy and pharmaceutical technology. At the end the patient benefits from the pharmacist's work.

Since this is the last issue of the year we would also like to thank our reviewers for all their great efforts during the past year. They have done a tremendous amount

of work to improve the submitted papers. It allowed us to have a low rejection ratio as their constructive remarks were taken into account most of the time. We hope that the next year will be as fruitful as this one and we encourage all potential authors to share their findings and experiences by submitting their best research.