Purpose To quantify the benefits that pharmacists reaped in the day-to-day work in terms of productivity (number of preparations/day), after the annual upgrade.

Materials and Methods The performance of the APOTEC-AChemo equipment was analysed before and after the 2012 upgrade. The time required for cyclophosphamide, trastuzumab and gemcitabine reconstitution was also investigated.

Results An average of 45 doses per day was prepared before the upgrade, with a maximum of 60 preparations. After the installation, an average of 75 preparations per day was recorded, with a maximum of 100. The reconstitution of stable powder drugs (cyclophosphamide, trastuzumab and gemcitabine) during ‘spare time’ (weekends, early mornings, lunch times) allowed an average gain of 55 (11.5%), 72 (15%) and 24 (5%) minutes per day, respectively.

Conclusions The new upgrade allowed us to increase daily productivity by 66.6%. The continuing multidisciplinary dialogue among the stakeholders (physicians, pharmacists, technicians and engineers) enables us to make better use of APOTEC-AChemo in the daily clinical activity and encourages the technology to develop.

No conflict of interest.

TCH-033 PHYSICOCHEMICAL STABILITY OF READY-TO-ADMINISTER EPINEPHRINE INJECTION SOLUTIONS 20 µg/ml, 50 ml
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Background In the University Medical Center Mainz standard concentrations are defined for medicinal products to be administered by continuous injection with syringe pumps in adult intensive care patients. Patient-individual doses are provided by adjusting the injection rate. Various medicines are aseptically prepared in the pharmacy department as ready-to-use products. Batch preparation of the products and keeping them in stock is only possible if stability of the products is tested using a validated method.

Purpose The purpose of this study was to test the stability of ready-to-administer epinephrine solutions for injection 20 µg/ml in 50 ml plastic syringes.

Materials and Methods Epinephrine bulk solution 20 µg/ml was prepared aseptically by diluting Suprarenin 25 mg/25 ml Sanofi-Aventis with 5% glucose infusion solution in empty infusion bags (PP/PE). The solution was filled with the NeoCare Compounder into 50 ml BD Perfusion Syringes, Luer Lock Tip, protected from light. The syringes were stored at 2–8°C in the refrigerator. Epinephrine concentration was determined by using a validated HPLC method with UV detection at 280 nm and an innovative HPLC column Nexsilour which contains sulfonyl groups.

Results The concentration of epinephrine in the 50 ml syringes remained unchanged over a period of 2 months. After 28 days and 2 months of refrigerated storage the concentration amounted to 100.5% and 100.8% of the nominal concentration, respectively. Neither adrenochrome (detection wavelength 480 nm) nor any other degradation products were detected during the study period. With regard to these results batch production is feasible. Stability over 2 months is assured.

Conclusions Epinephrine solution for injection 20 µg/ml, aseptically prepared by diluting the marketed injection concentrate with 5% glucose infusion solution in 50 ml light-protected plastic syringes, is stable under refrigerated storage conditions for at least 2 months.

No conflict of interest.