errors. Results were analysed by sub-groups using FDA Human Factors guidelines. A risk score was calculated for each syringe type and for each step based on the error occurrence and its severity according to the risk class: dosing error, microbial contamination and unexpected adverse event. This Health Hazard Risk Evaluation (HHRE) method has been published by BD.

Results With PFSs the handling error rate was lower and the HHRE score was better. Dosing error and microbial contamination occurred respectively in 12.7% and 43.1% of infusions with the conventional system but only in 4.8% and 0.2% with PFSs. 6% of conventional system infusions showed a risk of needle stick injury (one injury actually happened) versus 0% for PFS.

84% of HCWs would use the new PFS in their daily practise mainly to decrease the risk of contamination and administration errors, and to save time.

Conclusions Prefilled 50 ml infusions with a syringe pump help reduce patient risks (especially dose error and contamination) and HCW injuries. PFS is also preferred by HCWs.

No conflict of interest.

Technology (including: robots for production, incompatibilities, drug production and analytics, CRS)

TCH-001 A CASE REPORT OF A WOMAN HOSPITALISED FOR SEVERE LOSS OF WEIGHT AND PSYCHOTIC DECOMPENSATION AFTER TAKING A SLIMMING PREPARATION

doi:10.1136/ejhpharm-2013-000276.192

[1]N Layoun, [1]C Blanco, [1]A Benassaya, [2]H Rebiere, [2]C Civade. *[1]CHRU Montpellier, Pharmacy, Montpellier, France; [2]French Health Agency, Laboratories and Control Directorate, Vendargues, France*

Background A French pharmacovigilance centre recorded the case of a 40-year-old woman hospitalised for severe loss of weight (16 kg in 3 months) associated with hypokalaemia, inflammatory syndrome and psychotic decompensation, after taking a slimming preparation. It was sold on the internet as an herbal medicine containing natural authorised substances.

Purpose The expertise of the French Health Agency (ANSM) was requested to find, identify and measure the active substances (ASs) contained in the product.

Materials and Methods At first, the analysis strategy was a general screening method to search for ASs in the product, performed with gas chromatography–mass spectrometry [GC-MS] and high performance liquid chromatography-mass spectrometry [HPLC-MS]. Then a specific method confirmed the identification and quantified the AS using ultra performance liquid chromatography-diode array detection [UPLC-DAD].

Results The slimming preparation was presented in capsules containing a fine, brown homogeneous powder. Gas Chromatography revealed two main ASs and the mass spectrometry analysis identified them as sibutramine and phenolphthalein. The result of HPLC/MS also revealed two main ASs on chromatogram with molecular masses of 279 g.mol-1 and 318 g.mol-1. The UPLC-DAD, using the method 'search for and quantification of 34 ASs in a slimming formulation', confirmed these preliminary results and also gave a quantity of 8 mg of sibutramine and 20 mg of phenolphthalein per capsule.

Conclusions Sibutramine is the AS in Sibutral (10 and 15 mg), an anti-obesity medicine, withdrawn from the market in January 2010 because of increased cardiovascular risk and an unfavourable benefit-risk assessment. Because of its carcinogenic potential phenolphthalein (a laxative) has been forbidden in France since 1999. Sibutramine and phenolphthalein were probably responsible for the clinical symptomatology in this patient. These slimming products sold outside the pharmaceutical distribution network have not been approved by the authorities resulting in a health risk, including fatal outcomes.

No conflict of interest.

TCH-002 ANALYSIS OF DISPENSING LOGISTICS PROCESSES CARRIED OUT BY SEMIAUTOMATIC CAROUSEL SYSTEMS

doi:10.1136/ejhpharm-2013-000276.193

M Martín-Herranz, MT Rabuñal-Alvarez, I Pedreira-Vázquez, S González-Piñeiro, M Calvin-Lamas, JR Vizoso-Hermida. *Complejo Hospitalario Universitario A Coruña, Pharmacy, A Coruña, Spain*

Background Hospital Pharmacy Services work hard at logistics to supply medicinal products to inpatients. This prompted the need to modernise the technical resources and logistical processes with a semiautomatic carousel system (SCS) for storing and dispensing.

Purpose To describe the logistics processes performed by our semiautomatic vertical and horizontal carousel systems (SVCS, SHCS) of the Kardex type.

Materials and Methods Descriptive observational study in a tertiary level hospital (1493 beds). Quantitative variable: 'medicines lines dispensing', defined according to the Product Catalogue and Invoicing Update from the SEFH-TECNO group (Spanish Society of Hospital Pharmacy-Evaluation Group of New Technologies). Study period: January–June 2012. Data Source: Pharmacy Service Internal Register computer application and Mercurio application version 2.12. The type of logistic process performed for dispensing is classified according to the type of order: stock in clinical unit, preparation of unidoses and replacement drugs for the Pyxis. The workload was calculated for each type of carousel according to the storage volume of each system (SVCS = 15.6 m^3, SHCS = 111.4 m^3).

Results The total number of lines dispensed during the study period was 1264751: 1235662 were prepared with SCS (97.7%). Depending on the type of order, more work corresponded to the preparation of unidoses with 1128343 lines (91.31%), followed by 83092 to prepare stock lines in clinical units (6.72%) and 24227 order lines for stocking the Pyxis (1.96%). Preparation of the unidoses was fully developed in the SVCS, while preparation of replacement stock for Pyxis and stock in clinical units were carried out in the SHCS. Depending on the type of carousel, the SVCS workload was 396.32 lines/m^3/day, compared with 5.27 lines/m^3/day for SHCS.

Conclusions Identifying and quantifying the processes undertaken by the SCS is a very useful tool that allows us to adjust the workloads of the pharmacy technicians.

No conflict of interest.

TCH-003 ASSESSMENT OF AUTOMATED DRUG DISPENSING SYSTEM PERFORMANCE INDICATORS

doi:10.1136/ejhpharm-2013-000276.194

I Blasco-Mascaro, G Mercadal-Orfila, R Romero-Del Barco. *Hospital Mateu Orfila, Pharmacy, Mahon, Spain*

Background Hospital Mateu Orfila has approximately 140 beds. Since 2007 it has operated an automated drug dispensing system (Pyxis) comprising nine units, five of them linked to the electronic prescribing system (EP).

Purpose To assess performance indicators of the automated drug dispensing system (ADS) that can be used to monitor the effectiveness of processes within the hospital quality system.