limitation of the study is that the costs of maintenance and the human resources reengineering required need to be further explored.

### Abstract DSL-004 Table 1

|                                | Advantages and disadvantages of the two systems  |   |
|--------------------------------|--|---|
|                                | System A   | System B  |
| SAFETY                         | All DUs can be unequivocally identified with batch expiry date Complete record, including batch, administration by scanner | Partial identification with batch barcode<br>and expiry date<br>Record drug administration with bar<br>code without batch |
|                                | Closed system  | Partially open systems, error risks   |
| EFFICIENCY                     | Entire integrated system including outpatients and elderly residences Full return of unmanaged DUs                         | Immediate availability of nursery doses needed to the patient   |
|                                | Allows automatic checking of expiry dates  | Full expiry date control is difficult   |
|                                | High cost  | High cost   |
| QUALITY                        | Complete record of all movements of both drugs and users   | Partial recording of users, batches, drugs in drug use chain  |
| Additional cost per DU (euros) | 0.19   | 0.20  |

No conflict of interest.

# DSL-005 **COMPARATIVE STUDY OF THE COST OF ERYTHROPOIETIC** FACTORS, ORIGINAL MEDICINES AND BIOSIMILARS IN **FRENCH CARE FACILITIES**

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**Background** The patent expiries of leading biological products and the development of biosimilars create opportunities for cost savings. No studies have been carried out in the French hospital market.

**Purpose** To perform a cost saving modelling analysis and investigate the potential factors that could affect the price of drugs.

Materials and Methods We carried out a comparative study in French healthcare facilities, representing about 65% of national hospital beds, of the price of erythropoietic factors. The data were collected on procurement procedures operative as of 1 January 2012.

Results 25 care facilities agreed to participate in the study. The overall sales turnover reached €15 M. Biosimilars represent less than 1% market share. All the establishments granted a discount of between 5% and 69% on the prices fixed by negotiation between the Comité Economique des Produits de Santé and the manufacturers, depending on the category (drugs, biosimilars or original biopharmaceuticals). The average discounts ranged from 11% to 73%. Binocrit, the main biosimilar represented was 25.6% less expensive than its original medicine Eprex. Based on French hospital financing, we show a 24.7% cost saving if a high interchangeability rate is adopted. Some participants could save up to 50% of their budget.

We identified and analysed three criteria known to have a farreaching effect on the drugs price. We observe no or little effect of the type of procurement procedure and specified quantity of medicine. The starting date of the contract is the primary criterion when purchasing drugs. The impact of these criteria varied depending on the drug in question and no general conclusions about medicines could be drawn.

**Conclusions** The market for biosimilars is growing at a faster rate than the global prescription-drug market. Many top-selling biologicals are due to lose patent protection over the next few years. The great potential for cost savings apparent in our study could be investigated in other countries.

No conflict of interest.

## DSL-006 COST ANALYSIS OF ADULT PARENTERAL NUTRITION **SYSTEMS: THREE-COMPARTMENT BAG VERSUS** CUSTOMISED

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**Background** Parenteral nutrition (PN) is a costly technology used widely to provide nutrition to patients who have an inaccessible or non-functioning intestine. Two all-in-one systems currently being used are customised formulations, prepared by hospital pharmacies, and three-compartment bags.

**Purpose** To provide a systematic cost comparison of the two all-inone PN systems: individualised (made from nutrient solutions) versus manufactured (made from three-compartment bag), both prepared in hospital pharmacies.

Materials and Methods We conducted a prospective study to analyse the total cost of PN bags, accounting for all of the processes involved in preparing and delivering them (the cost of manpower, nutrition solutions, medical supplies and quality controls) in three different healthcare settings. To compare therapeutic alternatives of equivalent nutritional value, the study was performed for the most frequently-employed formulation, which was similar to commercial preparations. A univariate sensitivity analysis was performed to evaluate the impact of different rates of use of three-compartment

Results 157 routine acts of PN bag preparation (65 hospital compounded and 92 three-compartment) were observed and timed over 9 days. Total costs of the 157 PN bags were included in the study. Mean costs of hospital-compounded bags were higher than threecompartment bags,  $51.16 \pm 5.63$  errsus  $39.69 \pm 3.00$  respectively (p < 0.01). Manpower costs were responsible for the majority of the differences found (70%). In scenarios using a three-compartment system for 30%, 70% and 90% of PN provision, a cost savings of 4.3%, 10.1% and 12.9% respectively could be achieved. Greatest rates of changing from hospital compounded bags (70% and 90%), in a hospital with 1,800 PN bags/year, might reduce the annual budget by 9306€ and 11,964.8€, respectively. Meanwhile, in a large facility the savings for 8,000 TPN days would be 64,248€ and 82,605€, respectively.

Conclusions Since we need to reduce the costs of effective treatments, three-compartment bags could be used for standard adult PN to save money.

No conflict of interest.

### DSL-007 DOES PHARMACY CONTRIBUTE TO DELAYS IN HOSPITAL **DISCHARGE?**

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Background Efficient management of patient flow including timely discharge from hospitals is vital. Patients in UK hospitals are commonly given individually labelled medicines to take home (TTOs). It is perceived by the multidisciplinary team at our hospital that waiting for these medicines is a significant rate-limiting step in the discharge process.

Purpose We examined the timeframes around TTO prescribing, dispensing and patient discharge in order to identify delays and any negative impact of the pharmacy processes involved.

Materials and Methods All TTO prescriptions entered into the pharmacy electronic log on one day in May 2012 were examined