

Direct avoidance of medicines costs by pharmaceutical analysis of hospital prescriptions

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BACKGROUND

Since 2012, in our University hospital, Computerized Physician Order Entry has been set up in two digestive surgery wards. Clinical pharmacists analyze hospital prescriptions via this software, in order to promote good use of drugs.

PURPOSE

To estimate avoided medication costs, in relation with pharmacist interventions, from April to June 2012 in two surgery wards (41 inpatient beds).

MATERIAL & METHODS

We focused on four types of pharmaceutical interventions (SFPC):

- 1 → to discontinue a medication
- 2 → to start medication for an untreated condition
- 3 → to modify a dose regimen
- 4 → to substitute one medication for another



- 1 → daily dose
- 2 → price per unit*
- 3 → average length of stay

Hypothesis : interventions had a cost impact for half of the inpatient's stay

Other types were excluded because none economic impact can be calculated

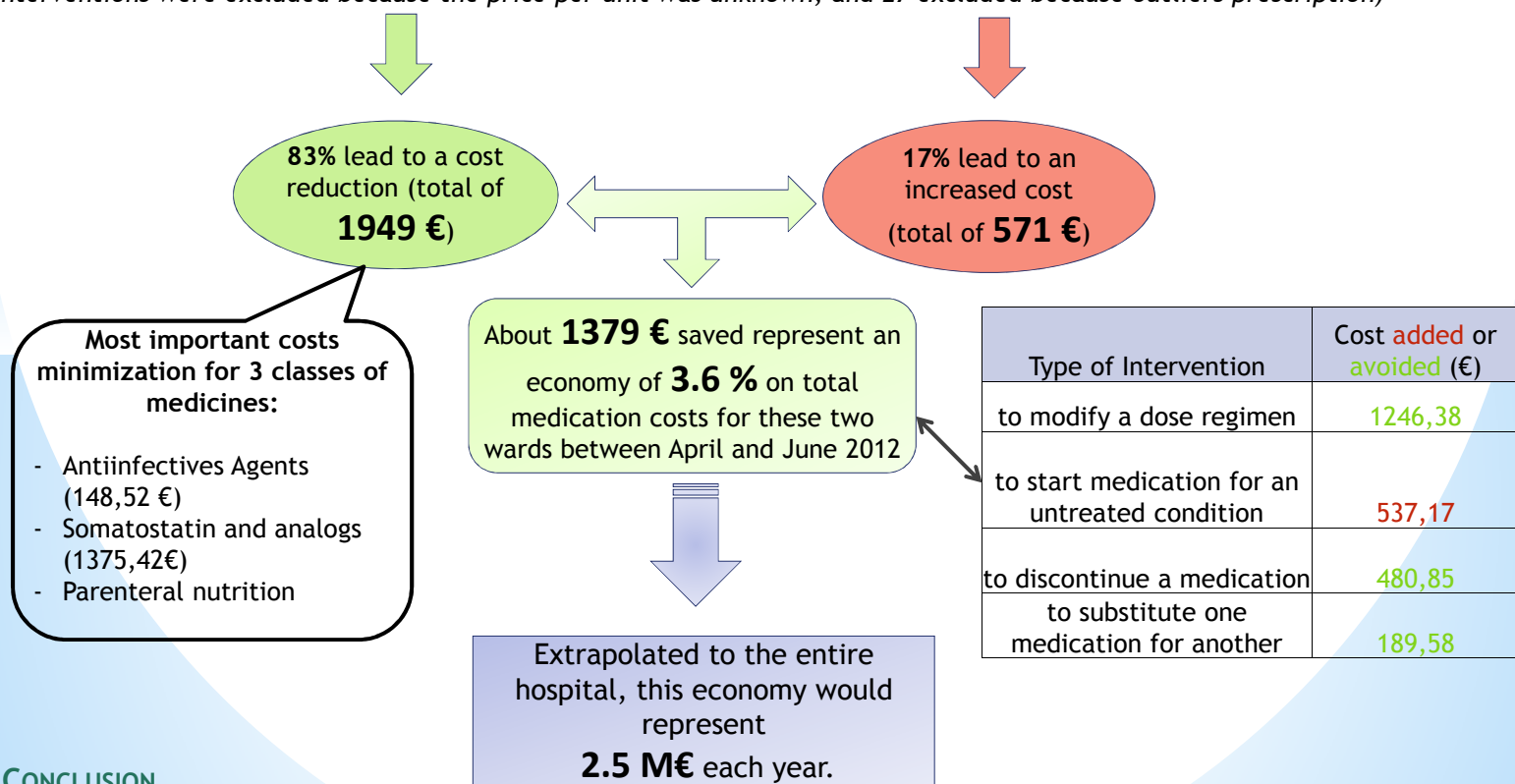
Cost impact was calculated as follows :

$$\text{Cost impact} = (\text{Added or avoided daily dose}) \times (\text{price per unit}^*) \times (\text{half of the average length of stay})$$

*for drug substitutions we calculated the difference between prices of both drugs

RESULTS

1706 prescriptions were analysed and 340 Pharmaceutical Interventions were accepted by physicians (20%) 238 were among the four types listed above and 155 interventions had an impact on medication cost (56 interventions were excluded because the price per unit was unknown, and 27 excluded because outliers prescription)



CONCLUSION

Medication costs can be reduced by pharmaceutical interventions. Economic evaluation of Clinical Pharmacy practice is necessary and further studies are needed to calculate indirect avoidable costs. We already have improved our method and now we are able to extract the real impact on inpatient stay.