ABSTRACT REVIEW

BAR14-0012

Adaptation of non-pharmacological prescriptions to an electronic prescription program

Co-authors
1Complejo Hospitalario Universitario A Coruña, Farmacia, A Coruña, Spain.

Background
During the implementation of an integral pharmacotherapy management system with electronic prescription system (Silicon®) connected to a nursing module for the electronic management of medication and nursing care (Gacela®), we found that we needed to identify all of the non-pharmacological prescriptions that were traditionally prescribed on a manual prescription sheet, and to find an alternative -having eliminated paper from the prescription process- so that they could reach the nursing staff.

Purpose
To describe the process of adapting the non-pharmacological prescriptions to the new electronic prescription system.

Materials and Methods
An observational study of 100% of the treatment sheets received by the pharmacy service at a tertiary hospital (1419 beds) over 7 consecutive days in order to identify the non-pharmacological prescriptions. A non-pharmacological prescription was considered to be any prescription that did not refer to drugs, medicinal gas, suerotherapy, or enteral/parenteral nutrition. The review was carried out by the pharmacists responsible for each inpatient care unit.

Results
A total of 2,048 single dose treatment sheets were reviewed (average: 186 sheets/pharmacist). 279 different non-pharmacological prescriptions were identified, which were grouped in categories: 111 (39.8%) general measures (e.g. contact isolation, walking with frame); 72 (25.8%) diet (e.g. try oral tolerance, remove probe); 41 (14.7%) ventilation (e.g. nocturnal BIPAP); 41 (14.7%) laboratory test (e.g. hemogram, urine culture); 14 (5%) water balance (e.g. hourly urine output, fluid restriction restriction). Due to the heterogeneity of non-pharmacological prescriptions within each of these categories and the limited versatility of connectivity between Silicon® and Gacela®, we created a fictitious specialty in the electronic prescribing program, called 'Nursing care'. This fictitious specialty allows transcription of non-pharmacological prescriptions as if they were drugs, so they can subsequently be dumped to the drug diaries or included in the specific nursing care schedules of the Gacela® application. The specifications of nursing prescriptions could be incorporated to the line through open field 'Remarks'. By default, it was configured with a frequency without fixed hours so that it could be viewed by all of the nursing shifts.

Conclusions
The incorporation of 'Nursing Care' as another line prescription was a quick and easy solution to a problem arising with the implementation of an electronic prescribing system, allowing communication of non-pharmacological orders between doctors and nurses and the withdrawal of paper in the process, although, other alternatives must be found to integrate this kind of information aim at the nursing staff.

No conflict of interest

Keywords
electronic;non-pharmacological;prescriptions;

Authors letter
During the implementation of an integral pharmacotherapy management system arose adaptation problems to daily practice. Since the final objective was eliminate paper from the prescription process and record all the information related to the inpatient was necceary include all the non-pharmacological prescriptions in our integral system. Because many of marketed computer programs do not included non-pharmacolgical prescriptions, it seems important to share our solution, simple and easy.

Score: 180
Remarks all reviewers:
Kart, Trine: Conclusion NOT warranted
Conflict of interest clear
Accepted, but Author modifications
1.4.
Modifications needed: ; ;
Nominee: No

Please explain the word "suerotherapy" as it is not familiar for international colleagues. Rewrite your purpose to reflect the aim of your study and not the aim of the abstract.
Gouveia, Antonio Melo: Conclusion warranted
Conflict of interest clear
Accepted, but Author modifications

Please clarify "suerotherapy". Conclusions should include a stronger statement about the need for adequate tools, because the adaption performed shows pharmacists ability to solve problems, but does not replace an adequate tool.
Background
In recent years, the hospital pharmacy profession has developed into providing increasingly specialized services and directed towards the clinic, but without losing sight of those traditional tasks related to custody, storage and dispensing of drugs.

Purpose
To describe a system that allows registering and quantifying the workload of a pharmacy service with 24 hours of continuing attention in a tertiary hospital.

Materials and Methods
A computer system for recording pharmacy requests was established. Data recorded: degree of urgency (urgent/standard), date and time of entry, type of requests (unidoses prescription sheets, unidoses claims, replacement of stock in clinical units, parenteral nutrition, enteral nutrition, suerotherapy, psychotropic drugs, narcotic or drug returns). Depending on the time, were established three time-slots: morning (8:00-14:59), afternoon (15:00-21:59) and night (22:00-7:59). The registration system identifies each request with a barcode sticker that includes all previous data.

Results
Period: March/2012-March/2013. 148,907 requests, 15.6% urgent. According to the time-slot: 94,645 morning (13.7% urgent), 44,002 afternoon (17.1% urgent) and 10,260 night (26.5% urgent). Within the morning, 33% of requests are focused from 13:00 h (11% urgent). Types of requests: 62,568 unidoses prescription sheets (2% urgent), 17,139 unidoses claims (35.2%), 33,642 replacement of stock in clinical units (43.1%), 7,049 parenteral nutrition (0.5%), 1,734 enteral nutrition (4.1%), 8,092 suerotherapy (9.7%), 6,680 psychotropic drugs (2.9%), 9,460 narcotic (3.6%) and 2,543 drug returns (0.6%).

Conclusions
Electronic registration of requests received in the pharmacy is a useful and simple method that reflects the activity of the pharmacy, be convenient to incorporate other activities (electronic prescription, therapeutic drug monitoring) to the registration system. The barcode allows the unequivocal identification of each request in every step of the process by barcode readers. This system allows us to quantify the workload of our service, distribute tasks by time-slots and detect the critical points of our activities and plan the actions to take to improve the efficiency of our work.

No conflict of interest

Keywords
activity; registration; workload;

Authors letter
The pharmacy service of a referral hospital is a central department of high complexity and workload. Although the primary objective of hospital pharmacists in recent years has been directed to the clinic and professional specialization in each clinical area, we believe that the quantification, classification and registration of traditional tasks (custody, storage, dispensing) are vital for the proper organization of work and optimization of available personal resources.

Score: 100

Remarks all reviewers:
Kart, Trine: Conclusion warranted
Conflict of interest clear
Accepted, but Author modifications
1.
Modifications needed:
Please remember also to explain the difference between "unidoses claims" and "unidoses prescription sheets" as these terms are not well known for all international colleagues. What is custody in a hospital pharmacy - is it storage or something more?
Gouveia, Antonio Melo: Conclusion NOT warranted
Conflict of interest clear
Rejected

8.9.10.
Reason for reject: ; ; ;
the system described does not measure *workload*, but only the flow of requests to the pharmacy

BAR14-0086
ROLE OF HOSPITAL PHARMACISTS TO ACHIEVE JOINT COMMISSION ACCREDITATION

Co-authors
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Background
An independent, not-for-profit organization, The Joint Commission accredits and certifies more than 20,000 health care organizations and programs in the United States. Joint Commission accreditation and certification is recognized nationwide as a symbol of quality that reflects an organization's commitment to meeting certain performance standards.

Purpose
To study the role of the hospital Pharmacists, during four years, in the implementation of improvements to achieve Joint Commission Accreditation.

Materials and Methods
We used the document 'standards for the accreditation of Hospitals Joint Commission International' and the report by the Foundation for the Accreditation and Development Assistance (FADA). Also a member of the Joint Commission International, after an initial audit in 2009, in which our Pharmacy was highly valued, suggested some improvements in the safe in the use of medicines that we should implement throughout the hospital.

Results
To achieve these improvements, the hospital pharmacists were part in two improvement teams: 'Handling and use of drugs' and 'core patient safety' and they had to lead different lines of work, among which are:
- Development of an Electronic Prescribing Program (EAP) integrated into a Nursing Care Program, to combine prescription, pharmaceutical validation and drugs administration in a single program. This work was done in collaboration with the Computing Service, doctors and nurses. The EAP has prescription aids like routes of administration, compatible fluids and recommended administration rates for each medication and alerts when there are interactions between two or more drugs or the prescription exceeds maximum doses recommended for each drug.
- Identification of high-risk medications and formalization their prescribing, dispensing, administration and storage, in the Pharmacy Service and in inpatient units. They have been especially vigilant in the case of concentrated electrolytes, limiting the prescription and dispensing, and establishing a double-check system before administration.
- Definition, conditioning and limitation the storage of drugs in inpatient units, centralizing in the Pharmacy Department the custody of the drugs that patients bring from home and the free samples that were delivered by pharmaceutical laboratories.
- Development of a new protocol for the use of narcotic drugs to ensure greater traceability throughout the process of prescribing, dispensing and administration, and including the disposal of not administrated doses.

Conclusions
- Drugs are used in almost all services and their use is described in a lot of protocols approved by the pharmacy and therapeutics committee of the hospital, so the pharmacists have an important part of any accreditation process that values patient safety.
- The hospital pharmacists, as medication experts should lead the implementation of improvements in the hospital to increase the safety in the use of drugs and for obtaining the Joint Commission Accreditation.

No conflict of interest

Keywords
Joint Commission; Accreditation;

Authors letter
This communication can be used to assess the work of hospital pharmacists in health care quality and patient safety.

Score: 40

Remarks all reviewers:
Kart, Trine:
Rejected
9.
Reason for reject: Please submit an abtract when this initiative has given you results to present for colleagues.
Gouveia, Antonio Melo: Conclusion warranted
Conflict of interest clear
Accepted New category: T9 could be rejected. If thought of as "international" it reflects an experience that may be useful to share. No data, no results, just a story.
BART14-0104
Innovating and collaborating—synergy between the hospital and the university

Co-authors
P. Ging¹, M. Creed¹, J. Brown¹, D. Murray², P. Gallagher³, C. Meegan¹.
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²Peamount Hospital, Pharmacy, Dublin, Ireland (Rep.).
³School of Pharmacy, Royal College of Surgeons Ireland, Dublin, Ireland (Rep.).

Background
Interim accreditation standards for pharmacy degree programmes emphasise the importance of preparing undergraduates for patient centred practice.

In 2012 the Pharmacy Department (PD) and the School of Pharmacy (SoP) signed a Memorandum of Understanding, the first such partnership in Ireland. As a result, undergraduate pharmacy education is undergoing a transformation from didactic learning delivered by academic staff to a patient centred clinical model delivered by hospital pharmacists.

Purpose
To establish a mutually beneficial, cost neutral partnership between a university SoP and a teaching hospital PD.

Materials and Methods
The following new elements have been added to the students’ curriculum:

1. lectures in therapeutics from clinical pharmacists, aiding contextualisation of material.
2. clinical teaching at the MMUH, small group workshops provide an opportunity to integrate knowledge and apply it to the management of clinical problems in individual patients.
3. career and management seminars, giving exposure to the reality of decision making in health care.
4. CV preparation and interview skills for the structured summer placements offered in the hospitals.

Results
Mutual benefits of the Partnership:
- Positive student feedback has highlighted the knowledge of the pharmacy staff, the ‘real life’ focus of the material and teaching methods.
- Mater Misericordiae and Peamount Pharmacists were appointed honorary lecturers of the RCSI, a first in Ireland.
- Expert input from RCSI staff into practice research.
- Enhanced profile of the pharmacy department within the hospital and nationally.

Conclusions
This synergistic collaboration has addressed an unmet need in Irish pharmacy undergraduate education. It is cost neutral and is being delivered within existing resources. This innovation will equip pharmacy students to be the patient centred professionals of the future, ensuring that patients are supported to the fullest extent by educated, competent and empathetic pharmacists while enhancing career development for hospital pharmacists.

No conflict of interest

Keywords
education; student; practice;

Authors letter
highly relevant for any pharmacy departments who may be invited to join a similar collaboration. We have found that staff were keen to take on teaching roles and that the collaboration had unforeseen benefits for the department. This is the first such collaboration in Ireland and while we are aware of "teacher practitioner" roles in UK practice, this collaboration is different in that it involves our entire department and teaching being delivered to students at the hospital itself. We believe that we have developed a model which translates well, has been mutually beneficial and is improving student education.

Score: 60
Remarks all reviewers:
Kart, Trine: Rejected
9. Reason for reject: ; Gouveia, Antonio Melo: Conclusion warranted
Conflict of interest clear
Accepted New category: T9 could be rejected. Just a story, no study, no data, but interesting. Maybe a national example to show to others.
BAR14-0111

Thrombolysis performed within three hours following stroke reduces disability and costs: an economic model to estimate savings

Co-authors
1Università degli studi di Torino, Post Graduate School of Hospital Pharmacy, Turin, Italy.
2“Infermi di Rivoli” Hospital, S.C. Neurology, Rivoli (TO), Italy.
3Mylan School of Pharmacy Duquesne University, Clinical Social and Administrative Sciences, Pittsburgh (PA), USA.

Background
Stroke is the second leading cause of death and the leading cause of disability worldwide. In Italy, there are approximately 200,000 new cases each year, of which about 80% are ischemic. Thrombolysis performed within three hours of an ischemic event reduces disability. Since 2005, emergency staff in the “Infermi di Rivoli” Hospital have been trained to utilize novel therapy protocols, thereby expediting treatment for these patients.

Purpose
To estimate the savings resulting from reduced disability in patients treated with thrombolysis in the Rivoli Hospital.

Materials and Methods
The economic evaluation required three main parameters:

1. Number of patients treated with thrombolysis – Data acquired from the Safe Implementation of Treatments in Stroke (SITS) trial, of which the Rivoli Hospital is a participant.
2. Cost of illness according to the degree of disability – Data extracted from studies assessing direct medical, non-medical and indirect costs accrued following an ischemic event.
3. Differences in efficacy between patients treated with thrombolysis as opposed to other treatments – Trial data collected from the third international stroke trial (IST-3).

These data, according to a specifically designed economic model, allowed for estimation of the potential savings resulting from timely thrombolytic treatment.

Results
Since thrombolytic therapy was introduced in the Rivoli Hospital, 146 patients received efficient stroke treatment due to improved therapy protocols resulting from the intensive training of internal staff. In addition to the significant improvement in quality of life, the reduced disability observed in patients following timely stroke treatment has resulted in a total savings of €304,150.54 since 2005.

Conclusions
The significant savings generated within the city area served by the Rivoli Hospital (population 364,234) as a result of more expedited treatment for a single neurological disease, has important implications regarding the implementation of similar treatment protocols at larger institutions.

Conflict of interest:
Enter Yes or No: No

Keywords
Thrombolysis; savings; economic model;

Authors letter
We hospital pharmacists play an essential role in economic resource management. Through our multidisciplinary background we can highlight savings from innovative treatments. An economic model, specifically created, allowed us to consider each variable and provided us an estimate of savings derived from the implementation of thrombolytic treatment.

Score: 180

Remarks all reviewers:
Kart, Trine: Conclusion warranted
Conflict of interest clear
Accepted New category: T1Gouveia, Antonio Melo: Conclusion NOT warranted
Conflict of interest clear
Accepted, but Author modifications
5.
Modifications needed: the study should consider the cost of treatment (to calculate real savings)
BAR14-0151
Clinical pharmacy services in cardiology: a lean perspective analysis

Co-authors
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1Arts et Métiers ParisTech, Logil, Paris, France.
2Barts Health NHS Trust, Pharmacy, London, United Kingdom.
3Hôpital Antoine Béclère, Pharmacy, Clamart, France.

Background
With increasing economic constraints and increased activity in hospitals, it is becoming more challenging for pharmacy services to deliver high standards of care to patients. Lean, an improvement approach from the industry sector, has already been used to optimize manufacturing and dispensing processes in hospital pharmacies by eliminating waste and improving value for the customer. The Lean approach has not been widely published on clinical pharmacy (CP) services.

Purpose
The purpose of this study was to analyze CP services provided in a cardiology unit from a Lean perspective in order to identify main wastes and the main ‘value added’ activities.

Materials and Methods
The study was performed in the cardiac CP department of a large UK teaching hospital in collaboration with a French engineering PhD student specializing in Lean thinking. A questionnaire concerning 13 main CP services provided by pharmacy was submitted to doctors and nurses to identify what were the high and low priority services. Direct observation during 5 days allowed realization of a process map for identification of the main activities and wastes of the CP process. A time study was conducted over 5 days to quantify the different types of wastes (as defined by Lean theory) identified from the process map.

Results
21 persons responded to the questionnaire (5 doctors and 16 nurses). The three most value added CP activities were:
- confirming drug histories on admission (medicines reconciliation),
- checking prescription charts,
- arranging take home medications

Those 3 activities were considered high priority activities by 95.2% of the respondents.

Among 8 types of waste defined by Lean we have identified:
- Overproduction: 100% of the medications dosage written by the doctors (in abbreviation - Latin) on the discharge summary are rewritten by the pharmacist (in full)
- Waiting: pharmacists spend 5% of their time on the ward waiting (e.g. for a free computer or waiting for a phone answer)
- Non-utilized staff intellect: pharmacists spend 12% of the time on the ward verifying patients own medications and writing ordering sheets which could be completed by a technician
- Transport: pharmacists spend 5% of the time transferring sheets to the pharmacy dispensary
- Motion: pharmacists spend 2.5% of the time on the ward looking for patients medication charts or for their medications

This study allowed us to test the implementation of the 2 first lean principles: ‘specify the value desired by the customer’ and ‘identify the value stream for each service’. We found that from a Lean perspective, 25% of the time spent on the ward by the pharmacist was not value added; suggesting room from improvement.

Conclusions
To our knowledge this is one of the first attempts to apply a Lean approach to clinical pharmacy services. The Lean approach helped us gain a better understanding of our processes and highlighted opportunities to optimize our processes. The next step is to use this data to improve clinical pharmacy services.

No conflict of interest

Keywords
Lean; Clinical pharmacy; Management;

Authors letter
1) Lean is becoming increasingly used by hospitals all around the world and hospital pharmacies should begin working on this new approach in healthcare 2) This work is the first to apply Lean thinking directly to clinical pharmacy processes 3) This work should encourage other pharmacists to adopt Lean principles in order to analyze and improve the efficiency of the services they provide

Score: 300

Remarks all reviewers:
Kart, Trine: Conclusion NOT warranted
Conflict of interest clear
Accepted, but Author modifications 3.

Score: 300

No conflict of interest
BAR14-0205
Preparation of hospital pharmaceutical services for traveler consultation

Co-authors
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1Centro Hospitalar Cova da Beira, Pharmaceutical Services, Covilhã, Portugal.
2University of Beira Interior, Health Sciences Research Centre, Covilhã, Portugal.

Background
The traveler's consultation serves to address preventive attitudes before, during and after the trip, which may include the administration of vaccines, prescription of prophylactic medication and advice on food safety. Advice to travelers is determined by destination and characteristics of the trip, as well as the profile and health status of the traveler. It is at this consultation that recommendation and prescription of a medical kit occurs in accordance with the individual needs of the traveler.

Purpose
The aim of this study was to design kits including over-the-counter and ethical drugs to prescription under the traveler's consultation.

Materials and Methods
A literature review was performed by searching for scientific articles in the PubMed electronic database, intersecting the terms 'travelers' health' and 'traveling internationally.' We also consulted national and international tropical medicine official websites.

Results
After analyzing the collected data, 21 different medicines kits were prepared taking into account the destination and immunization status of the traveler. All kits include leaflets with necessary recommendations / preventive measures, bandages, gauze, adhesive bandages, an antiseptic, an antidiarrheal, an analgesic and antipyretic, an antihistamine, a sunscreen with UVA and UVB protection and insect repellent. In addition to those products which are common to all the kits, there are some ethical medicines and leaflets that are specific to certain kits.

Conclusions
The pre-manufactured kits will facilitate a faster traveler support and will allow for standardization of information to the user. We believe that this information will prove useful, helping to provide quickly and effectively solutions to issues of health professionals and users who want to travel.

No conflict of interest

Keywords
medical kit; traveler; tropical medicine;

Authors letter
(1) It is important to prepare the hospital pharmaceutical services for the traveler's consultation designing medicine kits for prescription. Along with these kits, leaflets exist with the necessary recommendations / preventive measures.
(2) It is a new area of intervention of the hospital pharmacists, in which the traveler will find in these health professionals the support they need, both on information and the effectiveness and speed of service. (3) Thus, hospital pharmaceutical services should be equipped with prescribed / recommended medicines and pharmaceutical products at the time of the consultation traveler. Pharmacists will have an active participation, contributing to the standardization of information to the traveler, as well as responding to inquiries from health professionals about this issue.

Score: 60
Remarks all reviewers:
Kart, Trine: Conclusion warranted
Conflict of interest clear
Accepted, but Author modifications
1.
Modifications needed: ;
Nominee: No
New category: T3
Also explaining the term or content of "Ethical kits" as this is not a term that all international colleagues are familiar
Background
Patient satisfaction is an important indicator for evaluating the quality of service and it is a vital indicator for continuous monitoring and quality improvement in health care delivery system. The evidence show that satisfied patients are more likely to continue use health care services, value and maintain a good relationship with health care providers.

Purpose
The aim of this study is to cross-culturally adaptation and validation of the Armando Patient satisfaction questionnaire into Arabic language for the general patients population.

Materials and Methods
The translation process was conducted based on the Principles of the most widely used models in questionnaire translation, namely Brislin's back-translation model, which consists of four techniques: 1) back-translation, 2) bilingual technique, 3) committee approach, and 4) pre-test procedure. The work of Al-Muhtaseb and Mellish were followed to produce a natural Arabic text. The validation of the questionnaire into Arabic language for the general patients population was conducted in King Saud medical city in Riyadh Saudi Arabia 1800 beds at august 2013: a sample of 480 participants were recruited by research team. Informed written consent was obtained from patients who agreed to participate in this study.

Results
52.4 % of the total study sample were female, while 47.6 % of them were male. 52.4 % of the sample dispense 3 medications , also 56.2 % of the sample attend to Pharmacy for dispensing medications three or more per year.

Internal consistency was assessed using Cronbach's α, which show that high reliability coefficient reaching (0.9299), and high degree of consistency (table 1 & 2 ) can be relied upon in the application in future patient satisfaction research instrument.

Conclusions
A cross-culturally adapted Arabic version of the patient satisfaction questionnaire for use among the general population was obtained. This version presented good internal consistency and component structure identical to the original English version.

Table
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<tr>
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<td>0.882*</td>
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Table 2 Cronbachs α:

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<td>0.9299</td>
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</table>

No conflict of interest

Keywords
satisfaction; validation; pharmacy.

Authors letter

this study investigate the validation of satisfaction questionnaire Arabic version which show a good internal consistency and component structure identical to the original English version. The new questionnaire can be used to improve quality of pharmacy service in hospital.

Score: 100

Remarks all reviewers:
Kart, Trine:
Rejected
3.
Reason for reject: Gouveia, Antonio Melo: Conclusion warranted
Conflict of interest clear
Accepted
Nominee: No

BAR14-0222
Interest of a centralized infliximab preparation in a general hospital

Co-authors
L. Boccanfuso1, J. Vallat1, X. Seree de Roch1.
1Centre Hospitalier de Montauban, Pharmacy, Montauban Cedex, France.

Background

Infliximab (Remicade®) is a chimeric monoclonal antibody against Tumour Necrosis Factor alpha used in rheumatology, gastroenterology and dermatology. It is a costly medication that is supplied in 100 mg vials. Dose depends on patient's weight.

Purpose

At this time, the reconstitution is made by nurses. So we wanted to know if a centralized preparation at the pharmacy could generate savings.

Materials and Methods

We have calculated retrospectively during one year (May 2012 to April 2013) the difference between dispensed dose and exact dose (adapted to weight) from nominate prescriptions.

Results

25 patients were treated by infliximab and it represents 133 courses on the year. Administered doses were correct (difference until more or less 5%) according to patient's weight for 49.6% of courses, were rounded down to the nearest vial for 39.1% and up for 11.3%. Majority of courses are under dosed, so a centralized preparation couldn't be financially profitable. Indeed, doctors are conscious of the cost and prefer to under dose rather than waste. However publications have shown that the development of antibodies toward infliximab is inversely proportional to the dosage of infliximab. There is evidence that these antibodies are associated with an increased risk of infusion reactions and a decreased response. When infliximab is rounded down to the nearest vial, is there an increased risk of inefficacity or adverse effects? So, we have reconsidered the interest of a centralized preparation if the exact dose was administered. When courses are gathered together the same day of the week, at least 20 vials, i.e. 9850 € on the year, could be economized.

Conclusions

Our goal to make savings thanks to centralization met with the problem of majority low doses prescriptions, compared with marketing authorization. Our study raises the issue of the clinical response to low infliximab dose.

Scores:

10 **0.878
there are real risks, shouldn't we have to centralize despite an overcost?

No conflict of interest

Keywords
infliximab; centralized preparation; clinical response;

Authors letter
Infliximab is a costly medication. So a centralized preparation could generate savings for the context. hospital, in a budgetary restriction

Score: 60
Remarks all reviewers:
Kart, Trine:
Rejected
2.3.
Reason for reject: ; ; Gouveia, Antonio Melo: Conclusion warranted
Conflict of interest clear
Accepted, but Author modifications
1.3.
Modifications needed: ; ;
Nominee: No
som english language incorrections, this may be the cause for confusion in the interpretation of conclusions