ABSTRACT REVIEW

BAR14-0188

Satisfaction of patients and their caregivers receiving Home Parenteral Nutrition with the care given by doctors, pharmacists and nurses

Co-authors
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2Hospital General Universitario Gregorio Marañón, Nutrition Medical Unit, Madrid, Spain.

Background
The practice of Home Parenteral Nutrition (HPN) is continuously increasing due to its significant advantages. There is a necessity to study the degree of satisfaction of the patients receiving HPN with respect to various health disciplines involved in it.

Purpose
To evaluate the degree of satisfaction of patients and their caregivers receiving HPN with doctors, pharmacists and nurses in a hospital.

Materials and Methods
Patients receiving HPN and their caregivers voluntarily and anonymously answered a survey consisting of 48 closed questions. The obtained answers were used to create a database in SPSS software with the following variables: personal, social and medical data related to HPN. Evaluation of health personnel involved (nutrition area of the Pharmacy Service and Nursing and Medical Nutrition Units), hospital facilities related to HPN and a suggestions section were also considered.

Results
According to the results, the majority of patients and caregivers were satisfied with the service.

Conclusions
It is possible to make improvements considering the degree of satisfaction of patients and their caregivers receiving HPN with the service given by doctors, nurses and pharmacists to optimize the quality of the whole process.

No conflict of interest

Keywords
Parenteral Nutrition, Home; Patient Satisfaction; Questionnaires;

Authors letter
The practice of Home Parenteral Nutrition (HPN) is continuously increasing in hospitals for the assessment of chronic patients who can continue the treatment in their own homes, by assuming significant advantages over hospitalization. There are very few publications in relation to patients receiving HPN satisfaction. There is a necessity to study the degree of satisfaction of the patients receiving HPN with respect to various health disciplines involved in it to optimize the quality of the whole process.

Score: 120

Remarks all reviewers:
Bermejo Vicedo, Teresa: Conclusion NOT warranted
Conflict of interest NOT clear
Accepted, but Author modifications
Nominee: No

Please specify results. Rewrite the conclusion taking into account the aim and results of the study
Rieutord, André: Conclusion NOT warranted
Conflict of interest clear
Rejected
1.3.
Reason for reject: ;

BAR14-0197
COMPUTERISATION IN A NEONATOLOGY UNIT. A CHALLENGE TO MEET TOGETHER BETWEEN NEONATOLOGISTS AND HOSPITAL PHARMACISTS

Co-authors
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J.L. Poveda Andrés1.
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2Hospital Universitario La Fe, Paediatrics, Valencia, Spain.
3Hospital Universitario La Fe, Neonatal Unit, Valencia, Spain.

Background
Technology is increasingly present in the hospital world. To implement the use of computer tools in a rational and safe way is a challenge for physicians and pharmacists.

Purpose
To analyze the computerization impact on physicians’ work in a Neonatal Unit and their evaluation of a software application created as a result of the joint collaboration with hospital pharmacy specialists in order to predict the approximate osmolality of total parenteral nutrition at the time of their prescription (OsmoCalc).

Materials and Methods
We conducted a survey with 15 questions divided into 3 blocks: pediatrics and computerization, relationship between hospital pharmacy specialists and neonatologists and finally, global evaluation of OsmoCalc.

Results
A total of 15 neonatologist answered the survey. Of the respondents only 33% follow a blog but 80% use a mobile device in their work. 66.7% believe that their collaboration as a pediatrician would be beneficial to develop any type of application. 80% of the neonatologists believe that computerization facilitates their relationship with the hospital pharmacist.

As for the application OsmoCalc, 66% believe it is more useful as a smartphone application, 26% as an Internet application and 7% as a spreadsheet. Among the 26.7% who know other applications from other centers, all prefer OsmoCalc. For 20% of respondents, other functionality that would seem useful would be the maximum allowable calcium without precipitating. Following the release of OsmoCalc, there has been an improvement in perceptions of hospital pharmacists by neonatologists by 33.3%.

Neonatologists were asked to rate the usefulness of OsmoCalc from 0 to 10. 10 being ‘daily use’. The average score was 7.4 with a range 5-9.

Conclusions
Computerization is present in the work of the neonatologists, who see positively the use of new applications. The involvement of hospital pharmacists in the development of mobile device applications, is valued positively by neonatologists at our center.

No conflict of interest

Keywords
Collaboration; Technology; Neonatal Unit;

Authors letter
To the scientific committee: Technology is increasingly present in the hospital world. Implement the use of computer tools in a rational and safe way is a challenge for physicians and pharmacists, which may also influence both the way you work and interdisciplinary relationships. Here we present a collaboration between the pharmacy service and the neonatal unit to develop a tool that calculates the osmolality of total parenteral nutrition. This collaboration results in several benefits, first it lets an earlier adjustment of the parenteral compounds avoiding the readjustments once the parenteral prescription is already in the pharmacy service. Second that fact that the application is developed by healthcare professionals assures that it is adapted to daily practice. And third, but most important, this kind of multidisciplinary teamwork permits achieving a good work atmosphere among professionals of different departments. Yoir’s sincerely, Consuelo Jordán

Score: 200

Remarks all reviewers:
Bermejo Vicedo, Teresa: Conclusion NOT warranted
Conflict of interest NOT clear
Accepted, but Author modifications

3.4.5.
Modifications needed: ; ;
Nominee: No
Rieutord, André: Conclusion warranted
Conflict of interest clear
Accepted, but Author modifications
1.
Modifications needed: ;
Nominee: No
Background
The dispensing of medication to hospital outpatients has increased considerably in recent years, being currently one of the most important items in a hospital. In parallel, the number of documents that regulate the activity of the ambulatory department in hospital pharmaceutical services has also increased significantly. Much of this documentation is scattered among numerous references, so its systematization in a single manual would be appropriate.

Purpose
The aim of this study was to develop a Portuguese hospital outpatient manual procedure, covering all drugs commonly dispensed in hospitals to ambulatory patients, as well as all the inherent laws, rules and procedures recommended for this area of activity. Indicators of quality, necessary to the proper functioning of the ambulatory department, were also included in the developed manual.

Materials and Methods
Review of all Portuguese regulations, guidance standards and recommendations related to the activity of ambulatory department of hospital pharmaceutical services.

Results
This review led to 17 clinical pathologies whose medications are exclusively dispensed by the ambulatory department of hospital pharmaceutical services, which are regulated by 72 orders, 7 ordinances and 8 statement rectifications. Altogether this legislation encompassed 45 active substances. A total of 9 quality indicators to measure the quality of the activity developed by the outpatient sector were identified. The manual, in an advanced stage of preparation and available in a computerized (pdf) and A5 paper format, has proved to allow a very useful, practical and efficient consultation.

Conclusions
The developed manual is a valuable tool for all hospital pharmaceutical services, given that it is a systematic compilation of all existing documentation related to the outpatient department activity. It may help guide hospital pharmacists working in this ambulatory department quickly and effectively.

No conflict of interest

Keywords
Ambulatory; Manual; Outpatient;

Authors letter
(1) It is important to have a Portuguese hospital outpatient manual procedure, covering all drugs commonly dispensed in hospitals to ambulatory patients, as well as all the inherent laws, rules and procedures recommended for this area of activity. (2) A manual covering all the above mentioned issues was prepared for the first time in Portugal. (3) The developed manual is a valuable tool for all hospital pharmaceutical services, given that it is a systematic compilation of all existing documentation related to the outpatient department activity.

Score: 160

Remarks all reviewers:
Bermejo Vicedo, Teresa: Conclusion warranted
Conflict of interest NOT clear
Accepted, but Author modifications 4.5.
Modifications needed: ;
Nominee: No

Rieutord, André: Conclusion warranted
Conflict of interest clear
Accepted, but Author modifications 1.
Modifications needed: ;
Nominee: No
Background
Extra-corporeal photochemotherapy (ECP) is a procedure that exposes mononuclear blood cells, obtained through centrifugation, to ultraviolet irradiation, in presence of the DNA binding agents such as 8-methoxypsoralen (8-MOP). The ECP is mainly used for the T-cell-mediated diseases such as organ Graft-versus-host-disease (GvHD). Two methods can be used:
ON-LINE, which consist of irradiation of cells through extracorporeal circulation the only method used in AOUS until 2011 and now it is used only by Dermatology
OFF-LINE, which consist of leukapheresis of concentrated lymphomonocitary cells, irradiation and subsequently reinfusion this method was introduced in AOUS in 2012 and it is used by blood transfusion center

Purpose
The objective of this study was to analyze the costs and consumption data of Medical Device (MD) necessary for ECP in the period May 2012- May 2013, and compare the consumption of the previous years to see the savings obtained.

Materials and Methods
We analysed the costs and consumption data of the MD used in ECP in AOUS, extrapolating from informational database of the hospital. Then based on the average historical consumption were calculated the resources saved with the introduction of the new method

Results
During the previous EAHP and SIFO Congress it has been presented an abstract about off-line method, where it was calculated an average consumption is 867 kit/year, with cost/year of € 914.081 € (in this abstract the costs had also included UV lamps, now provided free of charge) and an estimated savings of about 55% (€ 409 922) with the transition to the off-line method. In the 2012 with the introduction of off-line method also the prices of kit for on-line method were recalculated. In this period (with an average of prices of online kit of 708€) it has consumed 380 kit with a cost of 269.169€ for online method and the consumptions of offline method were of 250 kit with a cost of 62.469€. Overall in the AOUS we have consumed 630 kit for ECP with the cost of 331.637€.

Conclusions
From the analysis of the data we have observed that AOUS had reduced 64% its costs and of 19% for its consumptions. The savings product exceeds the reduction in consumption therefore does not stem only from the decrease in the number of kits used, but also by the use of off-line method and the costs related thereto as well as the renegotiation of the price of the kit of the methodical online. The introduction of the new method, therefore, has produced a substantial savings for the AOUS.

No conflict of interest

Keywords
Extra-corporeal photochemiotherapy;ECP Off-line method;Medical Device;
allowed the development of pharmaceutical care outpatient consultations (PCOC) in hospital pharmacy services (HPS). Due to PC demand, our hospital has developed Monographic PCOC (MPCOC) focused on individual pathologies.

**Purpose**
To describe MPCOC activity in our HPS.

**Materials and Methods**
MPCOC are carried out in 3 HPS clinics where outpatients are attended, by appointment, by a hospital pharmacist specialized in his pathology and therapeutic. 2012 activity and PC activities are described.

**Results**
In 2012, 7,500 outpatients were attended in HPS. 60% outpatient visits are carried out in MPCOC (Table).

**Pharmaceutical Care Activities developed in each visit:**
- Therapy logging of pathologies addressed in each MOPCC.
- Health care coordination with the medical and pharmaceutical team at hospital and primary level.
- Development of unique pharmacotherapeutic history (primary and hospital care).
- Assessment of adherence in each patient visit.
- Reporting of drug interactions.
- Information pharmacotherapy.
- Documentation of medication-related problems, negative results of medication and interactions reports in electronic medical record.

**Conclusions**
MPCOC improves PC quality provided to outpatients, being always attended by a pharmacist specialized in pathology and therapeutics, allowing for comprehensive and continuous health care to the rest of the healthcare team regardless the level at which it is addressed (primary or hospital).

**Table**

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Main Pathology</th>
<th>Nº patients</th>
<th>Nº Visits</th>
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<tbody>
<tr>
<td>Viral path.</td>
<td>HIV, HBV or HCV chronic infection</td>
<td>1268</td>
<td>6493</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>Pediatric malnutrition, heart diseases, cystic fibrosis</td>
<td>940</td>
<td>2492</td>
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<tr>
<td>Endocrine</td>
<td>Malnutrition</td>
<td>571</td>
<td>3153</td>
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<td>Oncology</td>
<td>Solid organ malignancies</td>
<td>486</td>
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<td>Total</td>
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<td>3479</td>
<td>15134</td>
</tr>
</tbody>
</table>

Conflict of interest:
Enter Yes or No: No

**Keywords**
Outpatient Consultation Monographic;

**Authors letter**
1.- First Hospital Pharmacy Service in our country which develop several Monographic Outpatient Consultations focused in main pathologies and attended by a hospital pharmacist specialized in pharmaco therapy related with them. 2.- Information and communication health technologies used in the Hospital Pharmacy Consultation: dispensing robots, computerized unique pharmacotherapy history, visit appointment, etc. 3.- This new experience, shows the avenue for comprehensive pharmaceutical care to the rest of the healthcare team, both medical and pharmaceutical at primary or hospital care level, allowing a continuous health care.

**Score:** 100

**Remarks all reviewers:**
Bermejo Vicedo, Teresa: Conclusion warranted
Conflict of interest NOT clear
Accepted
Nominee: No
Rieutord, André: Conclusion NOT warranted
Conflict of interest clear
Rejected
Evidence based Pharmacy in German speaking Countries

Co-authors

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²pharmafacts GmbH, Drug Information, Freiburg, Germany.

Background

The concept and methods of evidence based medicine (EBM) promote the translation of best evidence into the therapeutic practice. The goal of the German Network for EBM (www.ebm-netzwerk.de) is to support development, dissemination and application of EBM principles. Scientific and educational meetings promote the discussion focussed on the interests of specific disciplines as well as the interdisciplinary dialogue among the different health-care professions.

Purpose

The section Evidence Based Pharmacy (Fachbereich Evidenzbasierte Pharmazie) basically brings together pharmacists in the network and provides a forum to discuss pharmaceutical issues in the context of the principles of evidence based medicine.

Materials and Methods

After several years of no activity in the section evidence based pharmacy, in 2012 the section was newly founded. After the first meeting in Hamburg a group of interested pharmacists planned first activities and composed the Pharmaziebibliothek (www.pharmaziebibliothek.de), which is a link list for evidence based information about drugs and basic knowledge about the methods of EBM. During a first workshop with focus of pharmaceutical issues at the annual meeting of the German Network for EBM in 2013 more ideas for activities were collected and the link list was supplemented according to the member’s feedback. For the annual meeting 2014 a workshop with pharmacists of different backgrounds is planned to discuss a more evidence based approach in the pharmaceutical practice.

Results

The composed link list was well acknowledged and is advancing. The activities of the newly founded section were well perceived in the specialised press. Since the section was newly founded only a few new pharmacists joined the section.

Conclusions

With our projects we certainly will not change pharmaceutical practice all over the countries – not even over the German speaking ones – but we still feel confident to contribute to the dissemination of evidence based pharmacy – at least in the German speaking countries.

No conflict of interest

Keywords

evidence based pharmacy; evidence based medicine; network;

Authors letter

1) Implementation of best evidence into clinical practice should be one of the main tasks of all health care profession - especially of hospital pharmacists being involved in the selection of drug therapies. 2) No other platform for evidence based pharmacy in German speaking countries is known. 3) For all (at least German speaking) the link list may be helpful to find relevant information.

Score: 80

Remarks all reviewers:

Bermejo Vicedo, Teresa: Conclusion NOT warranted
Conflict of interest NOT clear
Rejected
3.9.
Reason for reject: ; ;
Not aim of study
Rieutord, André: Conclusion NOT warranted
Conflict of interest clear
Accepted, but Author modifications
3.
Modifications needed: ;
Nominee: No
And so what?

Descriptive study of the enteral tube feeding practices in a tertiary hospital

Co-authors

BAR14-0259
C. FERNANDEZ LOPEZ1, C. MEARDE CABALLERO1, R. LOPEZ SEPULVEDA2, C. GARCIA FERNANDEZ1, C. GOMEZ PENA1, R. MORRON ROMERO1, M.C. GONZÁLEZ MEDINA1, D. BLANQUEZ MARTINEZ1, A. CABALLERO ROMERO1.

1Hospital Universitario San Cecilio, Pharmacy, Granada, Spain.
2Hospital Virgen de las Nieves, Pharmacy, Granada, Spain.

Background
The utilization of enteral nutrition (EN) has expanded as a practice of first choice in patients who are malnourished or at risk of malnutrition.

Purpose
To explore the practice of EN in order to identify possible aspects to improve from hospital pharmacy.

Materials and Methods
A six-months retrospective descriptive study (January-August 2013) was conducted in a tertiary hospital. The variables analyzed were: a) refer to the patient: age, sex, medical service and length of stay (LOS) and b) related to EN: formula type, route and duration of enteral administration and daily calories intake. Prescription data were collected from electronic prescribing program; patient data were obtained from the electronic medical record.

Results
A total of 217 patients received EN during the study period, 66.2% were men, mean age 68 years (range 32-95). The mean LOS was 20 days (minimum: 1, maximum: 103). The average days with EN were 8 (minimum: 1, maximum: 95). The clinical service distribution was: Internal Medicine (33.3%), Neurology (12.9%), otorhinolaryngology (11.3%), General Surgery (9.4%), Pneumology (6.9%), Digestive (5.2%), Mental Health (5.1%), Angiology and Vascular Surgery (5.0%), Traumatology (3.1%) and others (7.7%).

89 patients (41.0%) were malnourished at the outset of feeding; the mean daily calories fed were 1,105.55 K cal/day.

More than half of the enteral support were complete diets (68.5%), the rest (31.5%) were supplement diets. According to calorie-protein content four different diets were used: normoprotein-isocaloric (39.3%), high protein-isocaloric (31.9%), high protein-high calorie (19.7%) and normoprotein-high calorie (9.1%).

Conclusions
The increasing availability of different brands and varieties of EN requires the creation of nutritional support groups including a pharmacist during the choice of formulas, writing procedures and educating basic work teams. First of all, the analysis of the consumption of EN in our hospitals is vital to improve the correct use of this product.

No conflict of interest

Keywords
Enteral; Nutrition; Practice;

Authors letter
Enteral nutrition is a daily practice in our hospitals; the availability of different formulas types is increasing and sometimes it is difficult to keep updated in the study of these new brands and assume them in our centers. We must do a reflection about what we are doing before make decisions of improvement.

Score: 160

Remarks all reviewers:

Bermejo Vicedo, Teresa: Conclusion warranted
Conflict of interest NOT clear
Accepted
Nominee: No
Rieutord, André: Conclusion warranted
Conflict of interest clear
Accepted, but Author modifications
2.
Modifications needed: ;
Nominee: No

quite a light abstract!

BAR14-0271

Economic impact of medical and technical gases in hospital

Co-authors

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1A.O.U.P. Paolo Giaccone, Farmacia, Palermo, Italy.

events.eahp.eu/cm.net.webui/cm.net.webui.AS/AScoringAbstract.aspx?confID=05000000-0000-0000-0000-000000000024&personID=05000000-0000-0000...
Background
Gases such as oxygen, air, carbon dioxide and nitrous oxide are defined as medicines under the Legislative Decree No. 219 of 24 April 2006. This acknowledgement was recently acquired. AIFA rapidly launched the so-called AIC packages for the definition to the pharmacopoeia requirements referring to the quality of these products that allowed us to make the package codification and the guidelines for storing methods.
In a complex structured hospital, the gases are also used for different purposes other than those typically known as medicinal: gases can be used as vehicles for chromatography, functional purposes (argon for endoscopy equipment, helium 5.0 for cardiology and CT scans).

Purpose
The purpose of this study was to evaluate the economic impact of medical and technical gas usage.

Materials and Methods
The relative information about the consumption was taken from the general accounting program at the Polyclinico Paolo Giaccone. The indicated usage was requested to the individual operative unit that did the request.

Results
During the second half of 2012 gas was provided to the operating units for a total of about 146,000 Euros. The oxygen contributed to the 79.6% of this amount. The rest is about (40,000 Euros) 18% was spent on gas for clinical use: carbon dioxide (breather machines for the neonatal cribs and breather machines in the operating rooms during the operating sessions) medicated air and nitrous oxide to maintain patients under anesthesia. The rest of the expense was due to the purchase of gas used as a carrier for gas aided chromatography (Nitrogen-Argon). Helium as a carrier for chromatography and ICP-MS (ion coupled plasma bound to a quadrupole analyzer). Quaternary mixture for the evaluation of lung functionality (Carbon Monoxide, Methane, Oxygen, Nitrogen) The liquid nitrogen for cryogenic purposes was the one that has had a bigger impact on the expenses (51%) used for the preservation of cells and in dermatology also.

Conclusions
For a hospital with different realities and U.O. the gases constitute a commitment on spending of considerable entity and are used for different functions. The multidisciplinary nature inherent in the role of a pharmacist involves paying attention to the distribution of these gases not only for clinical use but also when is dispensed for the function of medical and analysis devices.

No conflict of interest

Keywords
medicinal gas; Economic impact; Legislative Decree No. 219 of 24 April 2006;

Authors letter
Score: 80

Remarks all reviewers:
Bermejo Vicedo, Teresa: Conclusion warranted
Conflict of interest NOT clear
Accepted, but Author modifications
1. Modifications needed: ;
Nominee: No
Rieutord, André: Conclusion warranted
Conflict of interest clear
Rejected
1.
Reason for reject: ;

BARI4-0300
Monitoring for parenteral nutritional support in hospitalized adult patients

Co-authors
1Hospital Clínico Universitario, pharmacy, Valladolid, Spain.
2Hospital Universitari Mutua Terrassa, pharmacy, Barcelona, Spain.

Background
Total parenteral nutrition (TPN) is the intravenous administration of nutrients, obviating the need for absorption through the gastrointestinal tract.

Purpose
Analyze the utility and evolution of laboratory values in patients receiving TPN in our center.

Materials and Methods
Retrospective observational study of 3 months duration (January 2013-March 2013) of patients treated


with TPN for at least 5 days. Clinical biochemistry were registered in the NUTRIDATA program.

Results
64 patients were included (45/19 males/females). The age of patients was from 27 years to 94 years (median age of 65 years). The mean duration of TPN was 9 days (3-27). As for medical services: General and Digestive Surgery was the service most requested TPN (43/64), followed by ICU (5/64), Internal Medicine (4/64) and Urology (2/64). 2/64 of the patients were Exitus. The values obtained at the beginning and end of the TPN were: Glucose 144,01-131,61 (p=0,073); Urea 49,13-61,18 (p=0,565); Uric Acid 33,38-15,29 (p=0,004); Total Bilirubin 1,3-1,85 (p=0,262); Direct Bilirubin 1,92-1,97 (p=0,223); Protein 49,03-59,51 (p=0,002); Albunin 27,5-28,77 (p=0,028); Triglycerides 102,44-173,13 (p=0,105); Cholesterol 152,16-88,29 (p=0,058); AST 38,68-40,09 (p=0,364); ALT 33,32-81,07 (p=0,079); GGT 118,95-267,39 (p=0,348); Iron Test 187,39-55,81 (p=0,302); CRP 132,32-93,78 (p=0,251); Amylase 74,61-49,08 (p=0,225); Sodium 137,73-134,68 (p=0,353); Potassium 4,00-4,28 (p=0,002); Chloride 87,39-55,81 (p=0,302); Magnesium 1,61-1,18 (p=0,092); Phosphate 3,46-2,56 (p=0,336); Leucocytes 10,38-10,48 (p=0,301); Lymphocytes 10,52-10,44 (p=0,005); Haemoglobin 11,02-10,44 (p=0,104); Red blood cells 3,55-3,55 (p=0,012); Prothrombin Time 75-97,5 (p=0,258); Platelet 189,4-314 (p=0,343); Fibrinogeno 4,67-5,76 (p=0,440).

Conclusions
The albumin and protein values increased progressively during follow-up which indicates a correct nutritional evolution. The elevation of liver enzymes and bilirubin is common due in part to the risk of cholestasis may occur in patients with TPN. The good results are due to an overall mean comparison, therefore it would be interesting to incorporate the analytical monitoring of nutritional response, determination of protein half-life shorter.

No conflict of interest

Keywords
Parenteral nutrition; Monitoring; Laboratory;

Authors letter
(1) The evolution of laboratory values is essential for good patient follow-up. (3) Nutritional support is a process which offers multiple opportunities for the occurrence of medication errors in its various stages, so the participation of the pharmaceutical helps solve these problems.

Score: 120

Remarks all reviewers:
Bermejo Vicedo, Teresa: Conclusion NOT warranted
Conflict of interest NOT clear
Rejected
2.3.5.6.8.
Reason for reject: ; ; ; ; ;
Rieutord, André: Conclusion warranted
Accepted
Nominee: No

BART14-0302
Development in pharmacy education on the example of discipline "Toxicological chemistry" under the influence of the Bologna system in Ukraine

Co-authors
E. Welchinskaya 1, I.V. Nizhenkovskaya2.
1 A. A. Bogomolet's National medical university www.nmu.ua, Pharmaceutical, Kiev, Ukraine.
2 A. A. Bogomolet's National medical university www.nmu.ua, Pharmaceutical, Kiev, Ukraine.

Background
On the current moment of time one of most important strategic tasks of modernization of the system of higher education in Ukraine is the education of high quality providing to the pharmacists in order to satisfy the worldwide needs. Therefore the improvement of higher education system and formatting of new conceptual directions of its development on the basis of analytical marking and strategic approaches are very important for studying of pharmaceutical courses, namely "Toxicological chemistry. Nowadays people live in the conditions of toxicological strain; therefore we have an important task to give the complete, systematic and accessible knowledge of "Toxicological chemistry" to the future pharmacists.

Purpose
The purpose of this work is the implementation of new pedagogical, psychological, statistical, chemical, analytical, biochemical methods into the studying of 'Toxicological chemistry' in the conditions of Bologna System in Ukraine.

Materials and Methods
Testing control is the first most important modern diagnostic and control instrument used for the evaluation of students' activities in the conditions of credit-modular system. The second most important instrument is a complex of principles used during the studying of this course such as 'general-to-specific and specific-to-general' and 'from simple to complex, from complex to simple', 'synthesis and analysis of information', 'visualization of toxicological processes on the new schemes', 'work on-line'. The third important instrument is the connection with modern sciences. All these instruments are provided by...
Results
One of the most important classes of toxic substances being studied at the course is the class of ‘volatile’ poisons (aliphatic alcohols, aldehydes and ketones, hydrocyanic acid, phenols, carboxylic acids, etc). The definite representatives of this class of ‘volatile’ poisons are methyl and ethyl alcohols. During the studying of biotransformation of methyl and ethyl alcohols in the human body, it is important to pay attention to the fact that their metabolic conversions are performed not only according to the defined scheme, but in the complex with organism’s substances. The main metabolite of methanol is the product of its oxidation by the enzyme alcohol dehydrogenizes (ADH) formaldehyde, which is oxidized to formic acid under the influence of the enzyme oxidaze, part of which is under the influence of decarboxylaze enzyme breaks down into carbon monoxide (IV) and water. 90% of ethyl alcohol is oxidized by the enzyme alcohol dehydrogenize (ADH) to acetic aldehyde, and then by the enzyme of oxidaze is oxidized to acetic acid or to carbon monoxide (IV) and water.

Conclusions
Thus, it is shown on the example of studying of the class representatives of ‘volatile’ poisons - methyl and ethyl alcohols in the course of ‘Toxicological chemistry’ how the comprehensive and specific materials are studied. The testing control of knowledge helps students to realize comprehensive and modern approach to the study of general theoretical and specific topics of the course of ‘Toxicological chemistry’ that is the mainstay of the provision of high quality preparation of the future pharmacists according to the level of international requirements.

Conflict of interest:
Enter Yes or No: No

Keywords

Authors letter

On the current moment of time one of most important strategic tasks of modernization of the system of higher education in Ukraine is the education of high quality providing to the pharmacists in order to satisfy the worldwide needs. Therefore the improvement of higher education system and formatting of new conceptual directions of its development on the basis of analytical marking and strategic approaches are very important for studying of pharmaceutical courses.

Score: 140

Remarks all reviewers:
Bermejo Vicedo, Teresa: Conclusion NOT warranted
Conflict of interest NOT clear
Rejected
Not aim of study Not methodology
Rieutord, André: Conclusion warranted
Conflict of interest clear
Accepted, but Author modifications
3.
Modifications needed: ;
Nominee: No

Seems interesting and unique but make results more understandable

BAR14-0325
Improvement of Health Care Services for ambulatory HIV patients: Preliminary Data
Co-authors
D. Gennimata1, M. Malliarou2, F. Marini1, M. Chini2, N. Pitsounis2, M. Lazanas2.
1 "Korgialenio-Benakio" Red Cross General Hospital, Pharmacy, Athens, Greece.
2 "Korgialenio-Benakio" Red Cross General Hospital, 3rd Pathology Clinic - Infectious Diseases Unit, Athens, Greece.

Background
HIV-positive ambulatory patients visit the Infectious Diseases Units of designated hospitals, in Greece, on a monthly basis. Antiretroviral (ARV) medication is prescribed by a doctor in each Unit and dispensed by a hospital pharmacist. HIV ambulatory patients in our hospital have been following this schedule until October 2010. An intervention, which is assessed in this study, was implemented in November 2010, for this group of outpatients.

Purpose
Assessment of the contribution of the collaboration between the Infectious Diseases Unit and the Pharmacy of the hospital, to the improvement of the quality of health care services provided to ambulatory HIV patients.

Materials and Methods
HIV outpatient monitored by the Infectious Diseases Unit of the hospital and receiving ARV medication...
HIV outpatients monitored by the Infectious Diseases Unit of the hospital and receiving ARV medication from the hospital pharmacy, from October 25th to November 29th, in the years 2010 (170 patients) and 2012 (245 patients) are included in this study. Prescription data that were collected from registries in both departments and patient satisfaction data that were collected by direct interviews with the patients are analyzed by SPSS®. The presence and assistance of a Social Worker employed by the Infectious Diseases Unit but offering services in the hospital pharmacy, on a weekly basis, acts as a 'link' between the patients and the health professionals in both units, since November 2010.

Results
In the study period of 2012, 71% of outpatients monitored by the Infectious Diseases Unit of the Hospital were eligible to receive ARV therapy. Among these outpatients, 72% visited the hospital pharmacy whereas for 28% of them medication was delivered by mail. These 245 outpatients waited for an average time of 1.3 minutes to be served, were served in an average time of 2 minutes and were satisfied in a grade of 9.9 out of 10. Moreover, 40% of these outpatients requested additional information regarding their medication (8.3%), administrative matters (10%) and other matters (24%). In the period of 2010, 170 of 270 outpatients (63%) visited the pharmacy and had to wait an average of 15 minutes, were served in approximately 3 minutes but had no time to either complain or ask further assistance and/or information.

Conclusions
Seamless care to patients with chronic diseases demands the appropriate and prompt administration of treatment, through quality procedures, regardless of the lack of personnel and infrastructure, in the health care system. The collaboration of both departments improved the quality of health care services, to the benefit of personnel and patients. These preliminary data impel us to further access the patients’ satisfaction with the provided healthcare services, through the construction and use of a questionnaire.

No conflict of interest

Keywords
HIV; quality of health care; ambulatory patients;

Authors letter
Integrated health care and patient-centered health care systems are a necessity in contemporary Europe. Units in a hospital may collaborate, outside the regular institutional framework. Ambulatory patients that visit hospital pharmacies deserve the best of care, regardless of infrastructure difficulties and lack of personnel.

Score: 240

Remarks all reviewers:
Bermejo Vicedo, Teresa: Conclusion warranted
Conflict of interest NOT clear
Accepted
Nominee: No

Rieutord, André: Conclusion warranted
Conflict of interest clear
Accepted
Nominee: Yes

BART14-0349
Analysis of standard costs of chemotherapy protocols in colorectal cancer in Siena’s University Hospital.

Co-authors

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2Siena’s University Hospital, Management Control, Siena, Italy.
3Siena’s University Hospital, Medical Oncology, Siena, Italy.

Background
Currently in colorectal cancer are employed a variety of therapeutic protocols such as FOLFOX, FOLFIRI, XELOX, XELIRI, which we can have an addition of monoclonal antibodies such as bevacizumab or cetuximab that lead to a considerable costs’ increase.

Purpose
In Siena’s University Hospital the departments of Hospital Pharmacy, Management Control and Medical Oncology are collaborating on a study that has as its ultimate goal to define the standard costs, the costs which are real which hospital spent for terapies of colorectal cancer.

Materials and Methods
To define standard costs were taken into account the drugs’s cost and the DRG for each access in day hospital, was also considered the working time of all healthcare professionals involved in the early stages: drug’s preparation, administration, education and training of patients, medical and nursing consultations. Even the diagnostic tests performed in Hospital (tac, blood sampling, ultrasound, etc.) are included in the calculation of standard costs.

Results
From the data obtained it can be seen in those protocols where there is an use of monoclonal antibodies the DRG manages to cover both the cost of medications, personal and diagnostic tests while in patients receiving bevacizumab or cetuximab you can have a loss of resources ranging from € 300 to € 1500.
receiving bevacizumab or cetuximab you can have a loss of resources ranging from € 300 to € 1500 each time are hospitalized in Day Hospital. If we consider that a patient can make more than 40 hospitalizations for year, losses skyrocket up to a maximum of € 60,000.

Conclusions
The results obtained show that with this system of DRG assistance for this kind of patients is not sustainable because you have to administer innovative drugs such as monoclonal antibodies for their proven clinical efficacy. Next step is to evaluate standard costs of bevacizumab and cetuximab therapies also based on the clinical efficacy of first-line therapy in colorectal cancer.

No conflict of interest

Keywords
standard costs; colorectal cancer; costs’s analysis;

Authors letter
In this poster we treat the topic of standard costs in chemotherapy of colorectal cancer: there is an important relevance because we have to treat patients comparing two drugs with a new mechanism of action such as bevacizumab or cetuximab. The innovation of this work is to define a standard cost of therapy in order to channel the resources saved in the use of other innovative therapies.

Score: 120

Remarks all reviewers:
Bermejo Vicedo, Teresa: Conclusion NOT warranted
Conflict of interest NOT clear
Rejected
8.
Reason for reject: ;
Not concreted aim of study. Difficult to understand
Rieutord, André: Conclusion warranted
Conflict of interest clear
Accepted, but Author modifications
1.
Modifications needed: ;
Nominee: No

Please define DRG

BAR14-0354
ANALYSIS OF CONSUMPTION AND COST OF MEDICAL DEVICES FOR HIP PROSTHESIS IN SIENA’S UNIVERSITY HOSPITAL

Co-authors
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1Siena’s University Hospital, Hospital Pharmacy, Siena, Italy.

Background
The prosthetic hip replacement surgery is a solution increasingly common for numerous disabling diseases, (osteoarthritis, rheumatoid arthritis, fractures of the neck of the femur), affecting mainly elderly people.

Purpose
The objective of this study was to analyze the costs and consumption of hip prostheses used in Siena’s University Hospital for 2011 in Orthopedic Hospital Department and University Orthopaedics Department since these are an important voice in health expenditure.

Materials and Methods
We analyzed data of costs and consumption of hip in Orthopedic Hospital Department and University Orthopaedics Department for year 2011 extrapolating from computer system of the structur. We have researched data to produce a pattern for the authorized indications for each type of prosthesis.

Results
In 2011, 244 surgeries were performed hip replacement; 230 are primary surgery and 14 revisions. The analysis showed that in 30.5% of cases (57 patients) was used a cemented prosthesis and in 69.5% (187 patients) an uncemented prosthesis.

For uncemented prosthesis we have detected that approximately 50% were implanted in subjects older than 75 years and within this group 56% were older than 81 years.

Conclusions
Considering that the average difference in costs between the uncemented prosthesis and cemented ones is about € 1,382 (excluding the cost cement), a potential reduction in use of uncemented prosthesis patients only, eligible on the basis of the hypothetical guideline developed, would lead to a considerable saving in fact making a hypothesis minimal savings was seen that if the University Orthopaedics Department had the same percentage of Orthopedic Hospital Department would result in a net annual savings of € 61,200 (€ 13,300 (Male) + € 47,900 (Female)), allowing a rational reallocation of economic resources spared.
No conflict of interest

Keywords
- hip prosthesis; appropriateness of use; reallocation;

Authors letter

In this poster is dealt with the issue of medical devices in particular hip prosthesis, you want to implement is appropriateness of use of hip prosthesis cemented and uncemented which leads to significant savings of resources that can be used in the purchase of innovative medical devices.

Score: 100

Remarks all reviewers:
- Bermejo Vicedo, Teresa: Rejected
- Rieutord, André: Conclusion warranted
  - Conflict of interest clear
  - Accepted, but Author modifications
  - Modifications needed;
  - Nominee: No

BARI4-0366

Economic impact of the use of bevacizumab in the treatment of macular edema secondary to retinal vein occlusion

Co-authors
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2 Hospital Universitario Virgen del Rocio, Ophthalmology, Seville, Spain.

Background

After evaluating ranibizumab and bevacizumab for the treatment of macular edema secondary to retinal vein occlusion (RVO) by the Pharmacy and Therapeutics Committee of a tertiary hospital, based on the available evidence, both drugs were considered equivalent therapeutic alternatives and 'off label' Bevacizumab use was approved (1.25 mg intravitreal prefilled syringe prepared by the Pharmacy department, administered every 6 weeks for four doses and subsequently as required).

Purpose

To quantify the economic impact of the use of bevacizumab as anti-VEGF of choice in the treatment of macular edema secondary to RVO.

Materials and Methods

Data were collected from patients diagnosed with macular edema secondary to RVO from November 2012 to April 2013, and from the treatment given.

In order to calculate the savings generated by using bevacizumab, rather than ranibizumab, during this period, the direct cost difference between the two alternatives was used.

Results

18 patients with macular edema secondary to RVO were treated, with a total of 46 doses. In all the cases, we used intravitreal bevacizumab as antiangiogenic drug. The savings generated by using a dose of intravitreal bevacizumab rather than intravitreal ranibizumab was 1,291 €. The impact of cost savings for the hospital during the six months studied has been of 11,626 €. According to the established protocol, the incremental cost of one year treatment is 7,767-15,534 € (depending on the number of injections). Therefore, the annual impact on the hospital budget (assuming 36 patients / year) would be around 280,000-560,000€.

Conclusions

The selection of bevacizumab as antiangiogenic drug in patients with macular edema secondary to RVO generates significant cost savings for the healthcare system.

No conflict of interest
Authors letter

1. The high economic impact of some drugs requires a therapeutic equivalence policy based on scientific evidence and evaluated by the Pharmacy and Therapeutics Committee. 2. The therapeutic interchange policy and approval under use "off-label" of biological drugs by the Commission of Pharmacy of hospital is being implemented successfully in Spain. 3. The use of bevacizumab as the therapeutic equivalent of the ranibizumab in the macular edema generates significant cost savings for healthcare systems.

Score: 200

Remarks all reviewers:
Bermejo Vicedo, Teresa: Conclusion warranted
Conflict of interest NOT clear
Accepted
Nominee: No
Rieutord, André: Conclusion warranted
Conflict of interest clear
Accepted, but Author modifications
1.
Modifications needed:
Nominee: No

What about the clinical efficacy?

BAR14-0371

Referencing the GPE ‘introducer’ kit with a view to harmonizing gastrostomy insertion techniques

Co-authors
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Background
Gastrostomy insertions in our hospital are carried out under either endoscopic (EIG) by using the ‘pull’ technique or radiological control (RIG).

Purpose
To harmonize insertion technique in our hospital, an economic and technical assessment of referencing the introducer kit (IK), available for gastrostomy insertions by RIG and EIG ‘introducer’ technique, was performed.

Materials and Methods
The technical and economic characteristics of IK are compared to the multiple current devices for each service.

Results
For gastro-enterology, medical equipments individually employed by using the ‘pull’ technique EIG (1 endoscopic probe adjusted to the size, 1 guide wire, 1 adhesive drape, 1 trocar, 1 scalpel, 1 pair of scissors, 1 biopsy forceps) costs 108 euros surgically. For radiology, medical equipments individually by using RIG (1 hemostat, 4 safe needles, 1 scalpel, 1 introducer needle adjusted to the size, 1 guide wire, 1 telescopic dilator, 1 measuring stoma, 2 syringe 12ml) costs 296 euros surgically. The IK consisting of 4 safe needles, 1 syringe 12ml, 1 hemostat, 1 introducer needle adjusted to the size, 1 guide wire, 1 scalpel, 1 serial dilator, costs 317 euros surgically, or 20 euros more than radiology and 209 euros than gastro-enterology.

Conclusions
Utilizing a single size for the IK will also help reduce this excess cost generated through the progressive decrease for all devices (balloon catheters and line extensions). Ultimately reducing the number of references will help manage stock inventories more effectively and facilitate pharmaceutical traceability. Additionally, this excess cost may be balanced by the decrease in the frequency of operative complications and post-operative re-interventions by EIG ‘introducer’, clinically validated.

No conflict of interest

Keywords
gastrostomy; technique "introducer"; harmonization;

Authors letter

A local panel experts has assessed the clinical benefits of a novel insertion technique "introducer", which is accessible to both gastro enterologists and radiologists. Using the introducer kit could harmonize gastrostomy insertion techniques in our hospital.
Score: 80

Remarks all reviewers:
Bermejo Vicedo, Teresa: Conclusion NOT warranted
Conflict of interest NOT clear
Rejected
7.9.
Reason for reject: ; ;
Not aim of study
Rieutord, Andre: Conclusion warranted

Accepted, but Author modifications
1.
Modifications needed: ;
Nominee: No