Background Systematic retinopathy (ROP) screening using dilated eye examination is currently performed in the neonatal intensive care unit (NICU). In France atropine 0.3% eye drops are currently used as a mydriatic agent, but no systematic assessments of clinical tolerance and efficacy have been described in the literature.
Purpose To assess the occurrence of clinical changes in infants at different time periods preceding and following atropine drops and eye examination, as well as the mydriatic efficacy of atropine in this context.
Materials and Methods Prospective pilot study, in one NICU (June–September 2012). Atropine 0.3% eye drops (one per eye) were instilled in accordance with French good practise guidelines. Data collection was performed at 3 consecutive periods (P1: H-24 to H0 pre-atropine, P2: H0 to $H_2$4 post-atropine, and P3: $H_2$4 to H48 post-atropine), and included: abdominal distension, number of episodes of regurgitation or vomiting, necrotizing enterocolitis (NEC), somnolence, number of episodes of severe oxygen desaturation (<70%), bradycardia (<100 bpm) and tachycardia (>180 bpm). Assessment of efficacy was based on possibility for screening or not. McNemar's Exact Test and Wilcoxon-signed rank Test were used for the binary and continuous variables respectively. Significance was set at $p < 0.05$.
Results 18 children were screened (median gestational age at birth 27.2 weeks (IQR: 25.6–28.7), median corrected age 33.3 weeks (IQR: 32.3–34.3)). None of the variables showed a statistically significant difference between P1 and P3. Occurrence of abdominal distension ($P = 0.03$), number of tachycardia ($P = 0.05$) and oxygen desaturation events ($P = 0.03$) were more frequent in P2 than in P1. No differences were found in thte occurrence of other variables between P1 and P2. No NEC was diagnosed. Effective pupillary dilatation was obtained in 78% of cases.
Conclusions Our study suggests that atropine is an efficient mydriatic agent for ROP screening dilated eye exam in preterm neonates. Type and timing of the symptoms in our study suggest systemic muscarinic effects of atropine. A reduction in the concentration of the atropine eye drops could improve tolerance.

No conflict of interest.

CPC-011 AN AUDIT OF THE ADULT NUTRITION SUPPORT TEAM IN THE MANAGEMENT OF REFEEDING RISKS IN A UK TEACHING HOSPITAL

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Background In June 2010 a report, 'A Mixed Bag – An enquiry into the care of hospital patients receiving parenteral nutrition', was published by the National Confidential Enquiry into Patient Outcome and Death (NCEPOD). They reviewed 870 adult case notes and found inadequate assessment and monitoring in 54% and metabolic complications in 40% of patients.
Purpose In early 2011 the adult nutrition support team (NST) wrote the clinical guidelines on the prevention and management of refeeding syndrome. The aim of this audit was to evaluate the impact of the NST in the management of refeeding risks in adult patients who required parenteral nutrition (PN).
Materials and Methods Adult PN records from April 2011 to March 2012 were assessed retrospectively by NST members using the NCEPOD Parenteral Nutrition Audit Tool. Microsoft Excel spreadsheets were used to record information on assessment and management of refeeding risks.
Results 259 PN records were reviewed. 54% (140/259) patients were assessed and monitored by NST and 44% (114/259) by critical care teams. The NST found a risk of refeeding syndrome in 31.4% (44/140) of patients prior to starting PN. The non-medical prescribers (NMPs) of the NST prescribed intravenous electrolyte infusions to 88.6% (39/44) of patients who were at high refeeding risk (see Table 1). Four patients had BMI less than 16 kg/m^2. The NMPs prescribed the lowest calorie feed (1250 ml Nutriflex Peri 5.7) and the infusion rate was reduced by 50% for the first two days in order to minimise metabolic complications.
Conclusions All adults referred to the NST for parenteral nutrition were reviewed and assessed for refeeding risk. The NMPs prescribed a range of intravenous electrolyte infusions to 88.6% of patients who were at high refeeding risk. This proactive prescribing approach by NMPs prevented the development of metabolic complications associated with low electrolyte levels prior to starting PN.

Abstract CPC-011 Table 1

Pre-PN electrolyte serum levels	Patient number (%)
Magnesium less than 0.7 mmol/L	18 (46.1%)
Phosphate less than 0.8 mmol/L	11 (28.2%)
Potassium less than 3.5 mmol/L	4 (10.3%)
Potassium and Magnesium below minimum levels	6 (15.4%)

No conflict of interest.

CPC-012 AN ITALIAN COST-EFFECTIVENESS ANALYSIS OF PACLITAXEL ALBUMIN (NAB-PACLITAXEL) VS. CONVENTIONAL PACLITAXEL FOR METASTATIC BREAST CANCER PATIENTS: THE COSTANZA STUDY

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Background Paclitaxel albumin (nab-paclitaxel) is a nanoparticle albumin-bound paclitaxel formulated with the aim of increasing the therapeutic index in metastatic breast cancer (MBC). When compared to conventional paclitaxel, nab-paclitaxel has reported longer time to progression, higher response and overall survival, lower incidence of neutropenia, no need for premedication and a shorter time of administration.
Purpose To investigate nab-paclitaxel's cost effectiveness vs. conventional paclitaxel for MBC patients in Italy.
Materials and Methods A Markov model with progression-free, progressed, and dead states was developed to estimate costs, outcomes and quality-adjusted life-years (QALYs) over 5 years from the Italian National Health Service (INHS) viewpoint. Patients were assumed to receive nab-paclitaxel 260 mg/m^2 3-weekly (q3w) or conventional paclitaxel 175 mg/m^2 q3w. Data on health care resources consumption was collected from a survey performed on five Italian centres. Resources were valued at Euro (€) 2011. Published utility weights were applied to health states to estimate the impact of response, disease progression and adverse events on QALYs. Three sensitivity analyses tested the robustness of the base case incremental cost-effectiveness ratio (ICER).
Results Compared to conventional paclitaxel, nab-paclitaxel gains an extra 0.165 QALYs (0.265 life-years saved) and incurs additional costs of €2505 per patient treated. This translates to an ICER of €15,189 (95%CI: €11,891; €28,415).

One-way sensitivity analysis confirms the stability of the ICER for nab-paclitaxel despite the variations in the cost of taxanes.

Threshold analysis shows that the ICER for nab-paclitaxel exceeds €40,000 only if cost per mg of conventional paclitaxel is set to zero.

Probabilistic sensitivity analysis highlighted that nab-paclitaxel has a 0.99 probability of being cost effective for a threshold value of €40,000 and is the optimal alternative from a threshold value of €16,316 onwards.

Conclusions Based on those findings, nab-paclitaxel can be considered highly cost effective when compared to the acceptability range for ICERs proposed by the Italian Health Economics Association (€25,000;€40,000)

No conflict of interest.

CPC-013 ANALYSIS OF ANTIFUNGAL USE AND COST IN A SPECIALIST HOSPITAL DURING THE LAST THREE YEARS (2009–2011)

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Background Although antifungals constitute a small part of the antimicrobial drugs used in hospitals, proportionally their cost is high. Therefore, the use of antifungal analysis is important in order to achieve optimal clinical outcomes by appropriate management of resources.

Purpose To analyse antifungal use and cost in a specialty hospital over the last three years (2009–2011).

Materials and Methods Antifungal consumption was analysed in economic terms and number of Defined Daily Doses (DDDs). Data was processed for the whole hospital and broken down by clinical unit. WHO-ATC/DDD Index 2012 was used for DDDs calculations. Results were expressed in DDD/100 Stay-days (DDDs/100SD). Stay-days data were obtained from hospital healthcare activity records. Use data collected were: J02AA-antibiotics antimycotics for systemic use, J02AC-triazole antimycotics for systemic use, and J02AX-other antimycotics for systemic use. Consumption values were extracted from the pharmacy management SINFHOS computer application. DDDs automatically were calculation was made using EDUS_SUR application.

Results During last three years, antifungal use expressed in DDDs/100SD was 6.72% of anti-infective drugs used. The cost of antifungals represented 43.59% of the total cost of antimicrobials. 85% DDDs were prescribed by Haematology (105.55 DDDs/100SD), Intensive Care (43.38 DDDs/100SD), Infectious Diseases (12.49 DDDs/100SD), and Oncology (5.92 DDDs/100SD). Antifungal use went up especially in Infectious Diseases, which increased from 7.74 DDDs/100SD in 2009 to 21.72 DDDs/100SD in 2011. Of the antifungal agents, the most prescribed were fluconazole (10.46 DDDs/100SD) and amphotericin B (6,00 DDDs/100SD), followed by voriconazole (1.36 DDDs/100SD) and caspofungin (1.35 DDDs/100SD). The selection of antifungals evolved: fluconazole use increased from 1.31 to 3.71 DDDs/100SD, and amphotericin-B use increased from 1.31 to 2.90 DDDs/100SD, while caspofungin use decreased from 0.63 to 0.33 DDDs/100SD.

Conclusions The cost of systemic antifungals represents nearly half of anti-infective drugs expenditure in our hospital.

Efforts to assure optimal use of antifungals must be reinforced In Haematology, Intensive Care, Infectious and Oncology, by proposing clinical guides or protocols for prophylactic and treatment use.

No conflict of interest.

CPC-014 ANALYSIS OF ANTIRETROVIRAL THERAPY IN ADULT HIV PATIENTS IN A TERTIARY HOSPITAL

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Background Current guidelines (GESIDA/PNS-2012) for antiretroviral therapy (ART) in adults recommend the combination of 3 drugs for the treatment of chronic HIV infection.

Purpose To analyse the ART in adult HIV- infected patients monitored in our hospital.

Materials and Methods A retrospective and descriptive analysis was conducted at the Outpatient Hospital Pharmacy studying the types of ART in HIV adult patients treated on 1 January 2012. Dates were obtained from the electronic outpatient database.

Results 1226 patients were receiving ART. The type of therapy was: monotherapy in 40 patients (3.3%), dual therapy in 37 (3%), triple in 1107 (90.3%), quadruple in 32 (2.6%), quintuple in 7 (0.5%), sixfold in 2 (0.2%) and sevenfold in 1 (0.08%). 156 different treatments were observed with 22 drugs. The most common ART combinations were 2 nucleoside reverse transcriptase inhibitors (NRTI) plus a non-nucleoside reverse transcriptase inhibitor (NNRTI) in 585 patients (47.7%), followed by 2 NRTIs plus a protease inhibitor (PI) in 345 (28.1%) and 3 NRTIs in 75 (6.1%). 43.2% (530) received PI therapy and, mainly, boosted.

The combinations tenofovir-emtricitabine or lamivudine-efavirenz were the most frequently prescribed in 358 patients (29.2%), followed by abacavir-lamivudine-efavirenz in 89 (7.3%), tenofovir-emtricitabine-lopinavir-ritonavir in 80 (6.6%), tenofovir-emtricitabine-darunavir-ritonavir in 74 (6%) and abacavir-lamivudine-zidovudine in 72 (5.9%).

All patients received oral treatment and 3 of them subcutaneous treatment with the T-20 fusion inhibitor. 621 patients (50.7%) received once-daily treatment (49.3%), 604 twice-daily and one patient three doses daily. Regarding the number of dosage forms, 337 (27.5%) patients were taking one, 273 (22.3%) five, 238 (19.4%) three, 77 (14.4%) were taking two.

Conclusions On January 2012, 76% of our hospital HIV patients treated with ART were taking triple combinations of 2 NRTIs + 1 NNRTI or 1 PI.

All patients except one received once or twice daily treatment and 42% took 1 or 2 dosage forms/day.

No conflict of interest.

CPC-015 ANALYSIS OF ANTIRRETROVIRAL TREATMENT ADHERENCE

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Background The effectiveness of antiretroviral treatment (ART) depends on several factors. Non-adherence is the main cause of treatment failure.

Purpose To evaluate ART adherence in our hospital's HIV patient cohort and its effect on the efficacy of ART; as well as to determine the effect of several treatment-dependant factors.

Materials and Methods From July to November 2011, all HIV patients taking ART who came to the infectious diseases outpatients were included. Adherence to treatment was estimated as the (percentage) difference between units of medicines that should have been dispensed and units that were recorded in the Pharmacy