poliphenols + alpha lipoic acid + carbocysteine + Vitamins ACE. Pts were then randomised to one of the following 5 arms: 1) Medroxyprogesterone Acetate (MPA)/Megestrol Acetate (MA); 2) Pharmaco-nutritional support containing EPA; 3) L-carnitine; 4) Thalidomide; 5) MPA/MA + Pharmaco-nutritional support + L-carnitine + Thalidomide. Treatment duration was 4 months. Interim analyses were planned after every 100 randomized pts.
Results. At February 2009, 332 pts were randomized and 290 were evaluable: M/F 170/120, mean age 62 yrs (range 30−84), 96% were stage IV. A first interim analysis on all 125 pts enrolled showed a significant worsening of LBM, REE and fatigue in arm 2 in comparison to the others and it was withdrawn from the study. A second interim analysis after the enrolment of 204 pts showed arm 1 significantly less effective than the others for primary efficacy endpoints: it was withdrawn from the study. Statistical analysis at January 2009 showed in all patients a significant improvement of LBM (by DEXA) and REE and a significant decrease of IL-6 in arm 5. As for fatigue a significant improvement in arm 5 has been observed. As for safety, the treatment was overall well tolerated and the patient compliance was good.
Conclusions. The results so far seem to suggest that the most effective treatment for cancer pts with CACS should be a combination regimen.
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3025 POSTER

Determinants of pain response in patients (pts) with skeletal metastases receiving zoledronic acid (ZOL)

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Background: The prompt and sustained analgesic effect of zoledronic acid (Zometa®) in pts with metastatic bone disease (MBD) is well documented. However, identifying patient specific determinants of individual pain response merits further study to tailor therapy.
Material and Methods: A prospective open-label multi-center trial studied pain response in pts with MBD receiving ZOL. Observation lasted 6 months, with pts evaluated at baseline and receiving 4 mg of ZOL intravenously every 3 or 4 weeks, with reassessments every 6 or 8 weeks, respectively, in a total of 4 visits. A post-hoc linear mixed-effects model analysis explored the predictive value of the following variables on the composite Brief Pain Inventory (BPI): gender, age, tumor type, performance status, mental quality-of-life (QoL) SF-36 questionnaire, analgesics use, prior bisphosphonate (BP) therapy, and baseline BPI score.
Results: In all, 309 pts (124 male, 185 female) could be analyzed out of 313 pts accrued across 46 centers. The median age was 67 years (range 21–89) and pts had breast- (42%), lung- (14%), or prostate cancer (13%), multiple myeloma (10%), or another malignancy (21%). Sixty-seven pts (22%) received prior BP therapy. Age, gender, performance status, and tumor type were not independent determinants of pain. In contrast, mental QoL, baseline pain scores, analgesics use, and prior BP use were significant predictors of pain response (all $p < 0.05$). The mean pain score decreased from 3.50 to 2.70 with 0.035 points per week (ppw) (95% CI 0.024 – 0.046; $p < 0.001$). Above average baseline pain scores and better baseline mental QoL resulted in higher pain reductions of 0.067 ppw (95% CI 0.052 – 0.083; $p < 0.001$) and 0.052 ppw (95% CI 0.036 – 0.068; $p < 0.001$), respectively. Pts requiring more analgesics or with prior BP use had lower decreases in pain scores of 0.021 ppw (95% CI 0.003 – 0.039; $p < 0.001$). Overall, analgesics use decreased non-significantly ($p = 0.09$), but mental QoL improved significantly ($p = 0.02$) while on study. A sensitivity analysis confirmed the results.
Conclusions: Pts with MBD receiving ZOL experience a significant decrease in pain, independent of analgesics use and prior BP treatment. Highest benefits were observed in pts with higher baseline pain scores and lower analgesics use, supporting the early use of ZOL. Intriguingly, these results emphasize the intricate relationship between pain and mental wellbeing.

3026 POSTER

Dutch observational study on anaemia management with epoetin alfa in daily oncology practice – interim analysis results on 1000 patients

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Background: This study is addressing the real-life situation of epoetin alfa (Eprex®) treatment (ET) in chemotherapy-induced anaemia (CIA) in the Netherlands between November 2005 and July 2009.
Material and Methods: Data of the first 1000 patients (pts) enrolled, out of 1928 pts planned, were analysed. Eligible pts were 18 years or older, received ET and chemotherapy (CT) or were about to receive CT within a week as treatment for a solid tumour, Multiple Myeloma and (non-) Hodgkin's Disease. Data on haemoglobin level (Hb), blood transfusions (BTx), CT, ET and treatment-emergent adverse events (TEAE) were collected. Response to ET was defined as either a $\geqslant$1 g/dl Hb rise within first 4 weeks ET or a $\geqslant$2 g/dl Hb rise after baseline or a maintenance of Hb within range 11–13 g/dl after 4 weeks ET onwards until end of study, independent of BTx within 28 days. Continuous data are presented as mean $\pm$ standard deviation.
Results: 47% male and 53% female. Average age is 63.2$\pm$11.0 years. Most pts had lung (47%), breast (15%) and gastro-enterological (10%) tumours. The majority of pts had metastases (58%), received platinum-based CT (65%) and had 3-weekly CT cycles (83%). Last available Hb at CT start was 12.0$\pm$1.6 g/dl. Nearly all pts started with 40.000 IU ET once-weekly (99.6%). Time between start CT and start ET was 38.7$\pm$39.0 days. ET started at an Hb of 10.5$\pm$1.1 g/dl, lasted 12.4$\pm$7.9 weeks and resulted in an Hb-rise of 0.5$\pm$1.6 g/dl after 28 days (28–35 days) ($p < 0.0001$) and 1.3$\pm$2.1 g/dl after 56 days (56–63 days) ($p < 0.0001$), independent of BTx within 28 days. Dose was increased for 87 pts (9%) and 17 pts had a subsequent dose decrease.
More than a quarter of the pts received BTx during ET (27%), of whom 52% received a BTx within the first 4 weeks ET. Response to ET was seen in 63% of pts.
Of all TEAE, investigators assumed 1% to be related to ET. A thrombovascular TEAE (TVE) occurred in 89 pts (9%), was assumed related to ET in 17 pts and lead to an ET stop in 10 pts. During study 110 pts died, the majority (66%) due to disease progression. Four pts died due to a TVE, i.e., cerebrovascular accident (3 pts) and pulmonary embolism (1 patient), all not related to ET.
Conclusion: On basis of these results, in Dutch daily practice ET seems to start according to published American and European guidelines for the treatment of chemotherapy-induced anaemia. In more than 60% of the pts this resulted in a BTx-independent response. No unexpected AE's were reported.

3027 POSTER

Actual or adjusted surface area which shall we choose?

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Background: Calculation of chemotherapeutic drugs doses was standardized to Body Surface Area, with the aim to produce optimum systemic drug level & minimize drug toxicity; it also can be very challenging in obese cancer patients. Obesity represents a condition of excessive adipose tissue with its currently accepted definition is defined as Body Mass Index >30 kg/m^2); it once believed that obese patients who received chemotherapy on their actual body weight would result in increased toxicity, secondary to distribution of lipid soluble drugs into the adipose tissue. By using Adjusted Body Weight it's assumed that cancer patients would receive a dose of a particular cytotoxic drug associated with an acceptable degree of toxicity without reducing its therapeutic effect. The aim of this study is considering the use of adjusted body weight for calculation of chemotherapeutic drugs doses and its impact on the disease free survival in obese female breast cancer patients.
Method: We compared disease free survival between two groups of female breast cancer patients receiving adjuvant chemotherapy, both groups received FEC 100 regimen (Epirubicin 100 mg/m^2, 5-FU 500 mg/m^2, Cyclophosphamide 500 mg/m^2) for 6 cycles in the period between 2000–2008. Group A: (149 patients) received their regimen based on their actual body weight calculation of body surface area [BSA (m^2) = vHt. (cm) $\cdot$ Wt. (kg)/3600]. Group B: (100 patients) received their regimen based on their adjusted body weight (Adjusted Body Weight = Ideal Body weight + 0.4(Actual Body Weight − Ideal Body Weight). Ideal Body Weight

for females = 45 + 2.3 kg for each inch >60 inches [60 inches = 152 cm]. Correlation with age, T & N status, hormonal status and HER2 status was done in the two groups.
Results: At median follow up period of 17 months there was statistical significance of disease free survival in favor of group B (70.3 months Vs. 52.4 months, p = 0.004). Both groups showed non-significant difference as regards correlation with other parameters: ER, PR, HER2 status, Age, T & N.
Conclusion: Using adjusted body weight is considered a proper alternative method for the calculation of anti-cancer drugs doses. An effort is currently using the substantial information to retrospectively examine outcome with respect to toxicities.

3028 POSTER

Diffusion effects of an inpatient hospice unit on improving the parent hospital's pain management of terminally ill cancer patients not receiving hospice care in Taiwan

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Background: Impact of hospice care on cancer pain management at the institution level of an acute hospital setting has not been addressed in prior research. The purpose of this study was to investigate the diffusion effects of an inpatient hospice unit on improving the parent hospital's quality of pain management as perceived by terminally ill cancer patients not receiving hospice care in Taiwan.
Methods: A convenience sample of 1,370 terminally ill cancer patients with pain who were cared for at hospitals with and without hospice units were compared for their pain relief experiences and perceived pain-management practices of healthcare professionals by generating multivariate logistic regression models using the generalized estimating equation (GEE) method.
Results: After controlling for selected hospital and patient characteristics and accounting for clustering of individuals at the same hospital, Taiwanese terminally ill cancer patients in the with-hospice group were 2.40 times (95% CI [1.53−3.76]) more likely than those in the without-hospice group to report their pain as not controlled before hospital admission. However, after patients with uncontrolled pain were hospitalized, they were equally as likely as those in the without-hospice group to report pain as not yet been relieved when interviewed (Adjusted Odds Ratio 1.42, 95% CI [0.77−2.64]). Patients in the with-hospice group were (1) less likely to complain about waiting too long for pain medication (AOR (95% CI): 0.41 [0.18−0.96]); and (2) more or as likely to rate the amount of pain medication received as adequate (depending on the status of adequate pain control before admission) than/as those from hospitals without an inpatient hospice unit.
Conclusion: Hospice care adds value at the institution level by effectively and appropriately managing the cancer pain of Taiwanese terminally ill patients not receiving hospice care.

3029 POSTER

The dosing frequency of sustained-release opioids and the prevalence of end-of-dose failure in cancer pain control: a Korean multicenter study

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Background: End of dose failure is commonly observed as therapeutic levels of sustained release opioids fall. However, little is known in case when using those for cancer pain control. To determine the dosing frequency of sustained release opioids (morphine, oxycodone and transdermal fentanyl) and prevalence of end of dose failure in clinical practice, patient-reported survey was performed.
Methods: A multicenter survey conducted in 56 hospitals in Korea between June and November 2008.
Results: The study enrolled 1,506 cancer outpatients who were prescribed sustained-release oral opioids (morphine or oxycodone) or transdermal fentanyl. Of the sustained-release oral opioid patients, 62% took sustained-release oral opioids twice daily, while 30% took them more than twice daily. Of the transdermal fentanyl patients, 89% wore the patch for 72 hrs. The median dose of daily supplemental short-acting opioids did not differ between the patients who took sustained-release oral opioids twice daily or and those who took them more than twice daily. Of the enrolled patients, 50% experienced worsening pain just before the next sustained-release opioid dose, and 60% of these took medication earlier than the prescribed dosing schedule. Of the patients with severe cancer pain, 77% complained of end-of-dose failure, compared to 57 and 33% of the patients with moderate and mild pain, respectively. End-of-dose failure was present irrespective of the administration frequency of sustained-release oral opioids in 49% of the patients taking twice-daily doses and in 61% of those taking more frequent doses. Patients felt that sustained-releases oral opioids gave adequate pain control lasting an average of 9.7 hrs, versus an average of 62.5 hrs for transdermal fentanyl.
Conclusion: This survey demonstrated that sustained-release opioids are used by patients in a manner that is inconsistent with standard recommendations. End-of-dose failure is thought to explain the increased dosing frequency, as half of the enrolled patients complained of worsening pain just before the next dose of sustained-release opioid and reported that adequate pain relief lasted for less time than was stated in the manufacturers' prescription recommendation.

3030 POSTER

Incidence of chemotherapy-induced nausea and vomiting (CINV) after highly and moderately emetogenic therapy in the era of NK-1 inhibitors – perception versus reality

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Background: Physicians and nurses had underestimated the incidence of chemotherapy-induced nausea and vomiting (CINV) after both high emetogenic chemotherapy (HEC) and moderately emetogenic chemotherapy (MEC) (Grumberg, Cancer 2004;100:2261–8; Erazo Valle, Curr Med Res Opin 2006;22:2403−10). We have assessed if physicians and nurses' perception of CNIV in their own practices after the introduction of Aprepitant was closer to reality.
Methods: A prospective, observational unicenter study of adult patients receiving their first chemotherapy cycle was performed. Medical oncologists and oncology nurses also estimated the incidence of acute (Day 1) and delayed (Days 2–5) CINV after first administration of HEC and MEC. Eligible patients completed a 6-day diary including emetic episodes, nausea assessment, and antiemetic medication use. Observed incidence rates of acute and delayed CINV were compared with physician/nurse predictions.
Results: Twenty-nine physicians and nurses and 95 patients (86.3% receiving HEC and 13.7% MEC) were recruited. Acute nausea and emesis were observed in 14.3% and 2.4% respectively of HEC patients receiving Aprepitant and delayed nausea and emesis were observed in 14.3% and 7.1% respectively of these patients. Physicians and nurses accurately predicted the incidence of acute and delayed CINV after HEC patients receiving Aprepitant. Acute nausea and emesis were observed in 22.2% and 0% respectively of MEC patients and delayed nausea and emesis in 33.3% and 22.2% respectively of MEC patients. All physicians and nurses underestimated the incidence of acute nausea and delayed nausea and emesis after MEC by 15, 28 and 18 percentage points, respectively.
Conclusions: The addition of Aprepitant in the prevention of CINV after HEC allows a better control of CINV that is perceived accurately by physicians and nurses. By contrary, physicians and nurses continue markedly underestimating the incidence of CINV after MEC. CINV still remain important targets for improved therapeutic intervention and physicians and nurses must be aware about the real incidence of CNIV.

3031 POSTER

Facing decision about biological therapy in developing countries – to tell or not to tell – physicians perspective

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Background: Biological therapy has improved outcomes in cancer treatment, nevertheless many of those agents are unavailable in public health systems in develping countries and only a minority of patients can afford high cost drugs. The aim of this study was to explore physicians'