In the context of a large international collaboration between Europe and USA (ACCENT database) we sought to confirm MMR status as a predictor of benefit from adjuvant therapy in stage II and III colon cancer patients from randomized clinical trials. MSI assay or IHC for MMR proteins were performed on 457 patients not used in previous analyses. All patients had stage II or III disease, and were randomized to 5-FU based therapy (either 5-FU + levamisole or 5-FU + leucovorin, N = 229)) versus no post-surgical treatment (N = 228). The primary endpoint was disease-free survival (DFS). Data were subsequently pooled with data from a previous pooled analysis. Seventy of 457 patients (15%) exhibited dMMR. Adjuvant therapy had a significant beneficial effect on DFS (HR = 0.69, p = 0.03) in patients with pMMR tumors. Patients with dMMR tumors receiving 5-FU had no improvement in DFS (HR = 1.10, p = 0.85) as compared to those randomized to surgery alone. In the pooled dataset of 1027 patients these findings were maintained, and in stage II patients with dMMR tumors treatment was associated with reduced overall survival (HR = 2.95, p = 0.04).
In this experience patient stratification by MMR status provides a more tailored approach to using adjuvant therapy in colon cancer. Therefore, in a patient being considered for 5-FU alone therapy MMR status should be assessed and considered in treatment decision-making.
Although these data are not completely confirmed by the observations in the US trial on 5-FU + CPT-11 (Bertagnolli M et al, JCO 2009) and in PETACC-3 study (Roth A and Tejpar S, ASCO 2009), the MMR determination in the context of clinical research or even in every day practice could become a “must” in the next future, chiefly for stage II patients and with the aim to improve the personalization of cancer treatment.

Special Session (Tue, 22 Sep, 17:00−18:00)
Case-based: clinical issues in cancer therapy

184 INVITED

Targeted therapies – better awareness of side-effects

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With the development of the targeted therapies, much attention has been given to the skin toxicities, particularly the skin rash. Rightly so, from the standpoint of the patient. Often nurses and other practitioners are focused on this side effect alone when informing the patient about expected side effects from these drugs.
Increased use of molecularly targeted therapies for an increasing number of cancers, is evident in clinical practice. Also, the regimens employing multiple targeted drugs are increasing whether in larger hospitals, private practices or at home.
Nurses are increasingly involved with these drugs, the tumour entities, all patients and all health economic situations and are therefore challenged to guide the patients throughout these treatments regardless if first, second or third line therapies.
The acne-like rash is one of the most obvious – this meets the eyes of the health professions, the patient the carers. Less obvious, but nonetheless important, are other side effects caused by monocolonal antibodies and the small molecule drugs. An increased awareness of these and reflection on which are relevant for nursing intervention and patient safety is needed. Nurses can support the concordance/adherence and understanding of the patient and carers toward these new therapy options and side effects.

185 INVITED

Controversies in anaemia: making blood transfusion decisions

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Background: Clinically defined cancer-related anaemia is common in cancer patients but the impact of mild/moderate anaemia is undetermined, when combined with cancer symptoms and/or the side effects of therapy. Blood transfusion is the standard treatment; however there are significant risks and costs. It is important that the decision to give blood is carefully considered but it is not clear how these decisions are made or who makes these decisions in the clinical setting. It is also unclear as to why blood transfusion decisions are variable. The purpose of this study was to explore the cultural practices in transfusion; and to identify the key elements, which influence clinical decision making in blood transfusion in haemato-oncology and lung cancer patients.
Methods: The assessment and decision making processes for blood transfusion were explored using fieldwork observation, six patient and nine clinician interviews based on ethnographic methodology. Data were analyzed using thematic analysis.
Results: First, the findings suggested that anaemia and transfusion are commonplace in the clinical setting; and because many patients live with anaemia and it may not be viewed as an illness. Second, this study confirmed there is a great deal of uncertainty surrounding the diagnosis and management of this clinical problem; but this uncertainty was acknowledged by both patients and clinicians. Third, clinicians and to some extent patients, are socialized into the practice of the sub-discipline and the decision making was based on the practice within the individual department. Finally it was revealed that the haemoglobin level was used as a distinct fragment of information on which to assess for the presence of anaemia and base the decision to treat with blood transfusion. Conversely it was described that decision making could be improved if there was consistency in patient assessment. The sub-specialisms of haematology and lung cancer used different haemoglobin triggers to describe anaemia for example, the haematology team used haemoglobin of 7−8 g/dl to describe anaemia, however the lung oncology team used a trigger of 9−10 g/dl to describe anaemia and the reasons for this were not clear other than the socialization of practice. Haemoglobin of 8 g/dl was described as being used as a trigger to transfuse and the transfusion trigger did not differ between the sub specialisms.
Conclusion: The management of anaemia is not a priority in this setting however by understanding the complexity of factors for variation in practice in the clinical context, new models transfusion can be developed. It may be that cancer related anaemia should be managed differently from other types of anaemia because it is not a primary diagnosis but a consequence of the cancer and treatment. Patient centred decision making may be a solution to optimize transfusion decisions whereby informed patients make the decisions, similar to the management of other chronic conditions, or as a minimum ensure there is consistency of patient assessment. Furthermore, different collaborative groups could be organized to develop optimal transfusion practices, for example to include nurse-prescribing of blood components.

Wednesday, 23 September 2009

Joint ECCO-ASCO symposium (Wed, 23 Sep, 09:00−11:00)
Controversies in individualised management of prostate cancer

186 INVITED

Bioinformatics and gene discovery in prostate cancer

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Rearrangements of chromosomes have been demonstrated to play a causal role in haematological malignancies and sarcomas. IThe gene fusions that result from these rearrangements have the potential to serve as diagnostic and prognostic markers of disease as well as therapeutic targets. The development of imatinib, which inhibits the BCR-ABL gene fusion product that defines chronic myeloid leukaemia, is the prototypical example of this type of targeting. Gene fusions involving the prostate-specific gene transmembrane protease, serine 2 (TMPRSS2) and members of the erythroblastosis virus E26 transforming sequence (ETS) family of transcription factors have been identified to be common events in prostate cancer. The most common fusion, TMPRSS2:ERG, is present in approximately 50% of prostate-specific antigen (PSA)-screened prostate cancers and in 15−35% of population-based cohorts. ETS fusions can be detected by FISH in the urine of men with prostate cancer, with a specificity rate of >90% when associated with PSA screening. Furthermore, it appears that there may be an association between ETS fusions and disease aggressiveness. The importance of the family of TMPRSS2:ETS fusions in the biology of prostate cancer, as well as their application to diagnosis, prognosis, and treatment contiues to be delineated.