presentation is advanced or symptom burden is great. This transformation has led to some concern that contemporary palliative care has lost clarity over its own position in relation to death and dying.
In this presentation, a debate on the concept of dying well in an oncology context will be offered. Using exemplars for recently conducted research in the EU and Ireland, the key questions which underpin the concept of a good death will be discussed. The international evidence on how cancer patients see a good death will be presented as well as the challenges facing clinicians who work at the acute intervention level when it becomes clear that different goals and objectives of care are indicated. Based on a recent case study. the presentation will conclude with an interpretation of how a palliative care response can be built into acute oncology practice which may be of benefit to patients with advanced disease and their families.

410 INVITED

Nurses Attitudes Towards Caring for Dying Patients in Acute Settings

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There is a need to better understand nurses' experiences and factors that determine these. The evidence on nurses' views about their experiences of caring for the terminally ill in the hospital setting described them as holding largely negative views. Factors that might shape these negative views have been mentioned but have not been studied statistically. If we are able to understand the factors influencing nurses' experiences and on how they go about their daily work with terminally ill patients, we might be able to modify these and effect how they interact and care for these patients. The research reported here about Spanish hospital nurses caring for terminally ill patients, starts to tackle this subject.
A cross-sectional postal survey was conducted involving 165 hospital nurses working on acute wards in 6 hospitals of one region in Spain (65% response rate).
Nurses valued the learning experience of caring for terminally ill patients and did not transmit much discomfort regarding death and dying. They perceived the care of terminally ill patients to be more demanding and challenging than caring for other patients. They were not highly motivated to care for this group.
Focusing on the multivariate analysis of factors that influence the challenges, nurses' perceive they face aspects such as degree of discomfort with death and dying, whether they view it to be a learning experience, their competence to care emotionally and their disposition to involve relatives were among the statistically influential factors.
The results point to the complexity of nurses' experiences of caring for terminally ill patients and the factors underlying these. Nurses' perceived competence to care emotionally for terminally ill patients was revealed to be a key factor influencing nurses' experiences. Tackling nurses' perceived ability to care emotionally for terminally ill patients should form a priority if we aim to improve the care they provide to terminally ill patients. On the other hand, as nurses' inclination to involve relatives decreased, they expressed fewer challenges in caring for patients. This suggests interactions with relatives may have an significant impact on nurses' experiences and more than that expected on the basis of the literature. Further research is needed to understand the nurse-terminally ill patient's relative relationship.

Special Session (Tue, 27 Sep, 11:30−12:30)
Surgical Treatment in Breast Cancer Patients With Distant Metastases

411 INVITED

Surgery of the Primary Tumour

Abstract not received

412 INVITED

Surgery of Liver and Pulmonary Metastases

Abstract not received

Special Session (Tue, 27 Sep, 11:30−12:30)
Desmoid Fibromatosis Tumours Representing an Unmet Medical Need

413 INVITED

Desmoid Type Fibromatosis: How Much Surgery and When?

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The first approach to desmoid type fibromatosis (DFs) today should routinely be a watchful surveillance. This policy could be the best way to select patients who really need a therapy, surgical resection included, from those who don't.
Infact DFs are made by different diseases. There seems to be a subset with favourable behaviour. Spontaneous regressions and long lasting stabilization have been repeatedly reported in up to 50% of primary cases. This subset maybe be constituted by tumours characterized by a different molecular profile, even if with an undistinguishable morphology. This hypothesis has recently been supported by the finding that a particular beta-catenin gene mutation subtype could correlate with the outcome. The results of this study, though need to be prospectively validated, look very attractive.
Beside more favourable diseases, there are also aggressive ones for which a treatment needs to be considered. Before resorting to surgery, anti-inflammatory drugs, hormonal therapies and sometimes low-dose chemotherapy are generally considered. Infact several times surgery induce more morbidity than the disease itself. This may not be true for all locations. On the one end patients affected by abdominal wall tumours may well prefer a surgical resection than a chronic therapy. Cosmesis is generally not affected and results are usually good (recurrence rate for tumours at this site being very low). On the other end, patients affected by intra-abdominal, head & neck and intrathoracic tumours are offered more often surgical resection, since the potential life-threat progression of their disease may determine.
When surgery is planned, the resection should not be accomplished with the same stricht principles of sarcoma surgery. Indeed many authors have claimed that the outcome of primary disease is quite unpredictable and not influenced by surgical margins. Therefore pursuing wide margins resection in primary surgery should always be weighted with function preservation and cosmesis.
This issue, along with the natural history of the disease, the lack of metastatic potential, the possible implication of inflammatory agents in further tumour re-growth have all become arguments in favour of a less and less aggressive primary approach.
At recurrence repeated surgical excisions are usually not the first choice and again preservations of function and cosmesis are always to be carefully taken into account.

414 INVITED

Radiotherapy as Adjuvant Treatment to Surgery or as Definitive Treatment?

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Desmoid tumours need more extensive surgery than STS of the same size due to their infiltrating growth pattern needing in order to achieve clear surgical margins. Despite of adequate surgery local recurrence rates are disappointing. A specific tumour grading like for STS does not exist. However, the tumours do not de-differentiate with increasing numbers of recurrences. Lethality is low and only apply to FAP with 10%. R0-Surgery and Wait & See (W&S) for unresectable cases was the standard of care for many decades. However, during the last decade primarily wait & see policies and also neoadjuvant treatments have gained increasing importance. This conservative approach can lead to long periods of stable disease in up to 80% of all cases and is lacking lethality. The importance of the surgical margin status remains so far unclear and is the case of further debates. Many factor may be attributed to the inconsistent evidences for this disease: Most studies were small in number and therefore lack statistical significance, the margin status did not always imply meticulous pathologic work-up.
Postoperative radiotherapy might have offset the detection of the margin impact. The postoperative release of tissue-derived growth factors might be the reason for the observation, that a considerable number of desmoids recur to a certain degree and thereafter remain stable for many years. Two groups of patients are distinguishable: A slow and a relatively faster proliferation subgroup, which needs more than a W&S policy. The DFS after surgical resection and non-surgical treatment seems to be equivalent. From more recent publications RTX as a conservative treatment approach seems to be benificial when added postoperatively or used definitively for primarily/recurrent or operable/inoperable disease. A comparative review of

surgery versus RTX showed irrespective of the margin status a clear local control benfit for the addition of RTX in the range of 15−20%. Moreover, the improvement of post-RTX recurrence rates from 20−30% for total doses of <50 Gy to less than 10−20% for >50 Gy suggests an underlying dose-effect relationship. However, a recent study showed no benefit for dose escalation >56 Gy except for increased rates of late complications. An EORTC study addressing RTX for progressive disease closed in 2008, whose results are still pending. The oral paper will collect the current evidences for multimodal treatment including adjuvant, neoadjuvant or definitive radiation for desmoid tumours hitherto.

415 INVITED

Systemic Treatment for Aggressive Fibromatosis

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Aggressive fibromatosis (AF), or desmoid tumour is a rare, fibroblastic proliferative disease. AF may present sporadically or more rarely as a manifestation of the hereditary syndrome Familial Adenomatous Polyposis (FAP). In 85% of sporadic tumours mutations are found in the β-catenin gene *CTNNB1* leading to increased activity of β-catenin and the characteristic immunohistochemical nuclear staining for β-catenin [1]. There is a marked female predominance and some tumours arise in the anterior abdominal wall after pregnancy. Despite the absence of metastatic potential, AF may cause debilitating symptoms such as pain, deformity and in some cases life threatening organ damage because of their locally invasive nature. A proportion of patients with AF can simply be observed, because the disease may become quiescent [2,3]. Otherwise surgery is the mainstay of treatment, sometimes followed by radiotherapy. However, surgery is unpredictable since the disease may recur in spite of negative resection margins or alternatively fail to recur in spite of positive margins. Radiotherapy is also used for recurrent or primary disease, depending on the site. Systemic treatment is reserved for patients with unresectable recurrence or if surgery would be too morbid. The most commonly used drugs as first line agents are tamoxifen [4], usually with a non-steroidal anti-inflammatory drug (NSAID), or NSAIDs alone. There are reports of activity with COX-2 inhibitors, such as celecoxib. Active chemotherapy approaches include weekly administration of methotrexate with either vinblastine [5] or dacarbazine, and doxorubicin, with or without dacarbazine [4]. One of the most active reported chemotherapy agents is pegylated liposomal doxorubicin (Caelyx/Doxil), with a marked improvement in pain and high disease control rate of 92% reported in one small series [6]. Of the molecularly targeted agents imatinib has activity, with some responses and prolonged disease stabilisation[7,8]. However, a recent report indicates that sorafenib appears to be a much more active agent with 25% partial remissions, 70% improvement in symptoms and a 95% disease control rate [9]. Currently the molecular targets underlying the activity of agents such as imatinib and sorafenib are unclear and further research is required to clarify these.

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Special Session (Tue, 27 Sep, 11:30−12:30)
New Insights in Metastatic Processes

416 INVITED

Growth Control and Cancer Metastasis

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The process of cancer metastasis, described in simple terms, comprises multiple steps involving changes in cell-cell and cell-matrix adhesion, enhanced motility, invasion of surrounding matrices and vascular structures, dissemination through the blood and/or lymphatic circulation, extravasation and lodgement in lymph nodes or tissues and then progressive growth at the secondary site. At each stage, there are important autocrine and paracrine interactions between tumour and host cells, many of which are effected by what might loosely be called growth factors. Ligands bind to receptors on either the cell that produces them, or more often to neighbouring cells, stimulating a plethora of downstream signalling cascades and changes in cell behaviour. The term 'growth factor' is misleading as many of the pathways stimulate not only cell proliferation, but also cell motility and invasion. What is more, both primary and secondary tumours generally require a blood supply to develop progressively, and this too is generally stimulated by angiogenic growth factors produced by the tumour which act upon vascular (and in some cases also lymphatic) endothelial cells and pericytes. One important family of growth receptors are the receptor tyrosine kinases (RTK), including EGFR, HER2, c-MET (particularly important in motility), PDGFR, FGFR etc. These are often overexpressed or mutated in cancers and are the targets for many small molecule and antibody-based therapeutic agents such as erlotinib and trastuzumab. Common downstream signalling pathways activated by these cell surface receptors include the MAP kinase and PI3 kinase pathways, which themselves can be activated by mutation or overexpression. Other major cell surface receptors are G-protein coupled receptors for cytokines, many of which are implicated in inflammatory cell activity (which can promote angiogenesis and invasion) and/or the tropism shown by certain tumours for organs where the ligands are commonly expressed (eg CXCR4CXCL12). There are also many examples of growth factor receptors that induce an epithelial-mesenchymal transition (EMT) which favours enhanced motility and chemotaxis in response to gradients of their ligands − which again may localise tumour cells to a particular tissue. In addition, metastases may preferentially develop where there are high concentrations of RTK ligands: for example, EGFR-expressing colon carcinoma cells favour liver where there are high levels of TGFalpha. Also, HER2/3 expressing breast cancers may favour the brain as a site of metastasis as it expresses high levels of neuregulins which bind to and transactivate these receptors. So overall, 'growth factor' signalling has been shown to affect each and every stage of the metastatic process, from inducing cell proliferation, detachment, motility, tropism and survival at secondary sites.

417 INVITED

Matrix Metalloproteases and Remodelling of the Extracellular Matrix

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Matrix metalloproteinases (MMPs) have many functions in the cellular microenvironment through cleavage of proteins leading to their activation, inactivation or removal. As a result broad-spectrum inhibitors of these enzymes were unsuccessful in clinical trials in cancer patients. We have examined the nature of protumorigenic and antitumorigenic targets and functions of MMPs in both normal epithelium and neoplastic epithelium using transgenic mouse models. MMPs play an important role in the proliferation and morphogenesis of normal epithelium. Our data indicate that MMP9, MMP13 and MMP14-dependent remodelling of the collagen scaffold regulates cell invasion and migration and inflammatory cell infiltration. In addition in tumours they regulate the structure and permeability of the vasculature. MMPs increase VEGF bioavailability and also increase production of antiangiogenic extracellular matrix fragments. The microenvironment also contributes critically to drug response through the regulation of vascular permeability and innate immune cell infiltration. MMP9 null mice, which have increased vascular permeability, were more responsive to the chemotherapeutic drug doxorubicin. Thus remodeling of the extracellular microenvironment may have important actions on drug responses. As we gain insights into these mechanisms they will aid in refining protocols for treating cancer.