underlying cancer cachexia. Both processes lead to loss of body weight, lean body mass, and muscle function, as well as a progressive deterioration of function of many organ/systems, a poor quality of life and finally to a poor adaptation to any stress event. Although neither sarcopenia nor cancer cachexia may be reduced to a condition of simple starvation, an adequate nutritional intake is the conditio sine qua non which can make possible any attempt of aggressive oncologic therapies which are validated in adult subjects [5].

The future: As numerous studies have been set, it is only a matter of time till the results will be made available and an accurate screening for vulnerability is close to hand. The momentum has generated vivid interest: ASCO dedicates sessions to this topic. A Geriatric Oncology subspecialty has been set up in 10 USA Institutions who are recipients of a Geriatrics/Oncology Training Program Development Grant. Similar examples are also available in Europe; a Diplome Universitaire d'Oncogeriatrie is awarded by three French Institutions. These Programs aim to provide optimal cancer care for senior adults and help patients to overcome the special challenges that this population faces in battling the disease. Onco-geriatric education is essential for physicians as well as nurses: EONS has a well established Curriculum for cancer in older people.

Crucial to the above mentioned progress has been the International Society of Geriatric Oncology (SIOG) whose purpose is to advance the art, science and practice of oncology in elderly patients and disseminate knowledge in order to maintain a high common standard of healthcare in elderly cancer patients. SIOG was founded in 2000 with the aim to improve research in the field of geriatric oncology, promote education in order to ensure a high standard of qualification for health professionals, maintain liaison with other medical and health professionals associations, cancer leagues, Universities and, where appropriate, the pharmaceutical industry. Numerous task forces have been organised to summarise the state of the art on numerous specific onco-geriatric aspects; SIOG is firmly intended to draft guidelines as soon as hard data will be made available with the unrolling of presently ongoing research.

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217 INVITED

Where and Why we Fail to Offer Appropriate Treatment to Older Cancer Patients

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Background: The number of elderly cancer patients is increasing rapidly in most industrialized countries. The proportion of cancer patients aged 65 or older has increased with over 50% since 1995 and 70−80% has serious co-morbidity. Elderly cancer patients are often excluded from clinical trials and therefore evidence is scarce about the tolerance and outcomes of treatment, whereas this information is highly relevant for medical doctors and patients.

Methods: Population-based studies.

Results: Previous population-based studies have shown that increasing age and co-morbidity had no influence on the resection rate when surgery is inevitable, like in patients with colorectal cancer, or in case of low risk surgery. In contrast, when less aggressive alternatives are available like in non-small cell lung cancer or prostate cancer, the resection rate decreased with increasing age and co-morbidity. Adjuvant treatment was also administered less often among elderly and those with co-morbidity. Elderly patients with small cell lung cancer or non-Hodgkin's lymphoma received chemotherapy less often. The most common motives for refraining from chemotherapy in these patients were refusal by the patient or family, short life expectancy or a combination of high age, co-morbidity and poor performance status. Studies have also shown that many elderly patients could not complete the full chemotherapy, mainly due to severe toxicity.

Those who received standard treatment had a significantly better survival, even after adjustment for differences in age, co-morbidity and performance status.

Conclusions: Patient characteristics that are predictive for severe toxicity leading to a poor quality-of-life or even death should be identified. This would enable the medical doctor to better select patients for aggressive treatment. In this way, relatively fit elderly patients can benefit from standard treatment, whereas severe complications can be prevented by treating frail patients with best supportive care for achieving an optimal quality of life.

218 INVITED

Multimodal Tailored Treatment to Older Rectal Cancer Patients

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In many surveys, elderly rectal cancer patients seem not to receive the treatment they are entitled to, according to local guidelines. Sometimes this finding is interpreted as if elderly patients are being undertreated, and treatment policy should be changed in order to let elderly patients benefit from up-to-date knowledge of rectal cancer treatment.

However, this principle being appropriate for younger patients certainly does not apply always to elderly. One of the most paradox findings in the Dutch TME study was that elderly rectal cancer patients assigned to the study arm (receiving 5×5 Gy preoperative radiotherapy followed by immediate surgery) had a significant better cancer specific survival compared to those in the control arm receiving only TME surgery. However, overall survival had not improved. The price for reduction of cancer related death was at the cost of an equal increase of other mortality causes.

Whereas, combined multimodality treatment has significantly improved rectal cancer outcome, it remains the question if multimodality treatment is the choice for elderly. The problem is that, although the highest incidence of rectal cancer is around the 8^{th} decade of life, this age group is underrepresented in all rectal cancer studies.

In counseling rectal cancer patients the efficacy of treatment is often translated to numbers needed to treat (NNT), meaning that an absolute gain of 10% is acceptable even if you have to treat en patients to benefit only one. In elderly it would also be realistic to talk about the number to harm or even kill. However, the magnitude of death related to other causes as result of treatment is poorly understood and therefore not communicated. Postoperative mortality is better understood and can be related to the acuteness of surgery, age, tumour classification and ASA classification. We showed that in the elderly cancer population the risk of postoperative mortality is doubled in the first six months. Furthermore, the level of functioning may be severely impaired. Rarely, the risk of not staying self-supportive or being able to remain the care taker for a frail partner is discussed.

In elderly it should be realized that the balance of cancer treatment and competitive death risk is completely different when compared to the younger. Treatment may not lead to a significant better odds ratio survival, but easily results in a significant worse functional outcome.

Since many years we lack the information, which outcome parameters should be used for rectal cancer treatment in the elderly. Without these parameters, prospective randomized trials cannot be designed. Therefore counseling should be more focused on functional rather than oncological outcome.

219 INVITED

Cancer Clinical Trials in the Elderly − Are we Ageist?

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Improving life expectancy in developed countries has resulted in an increasing older population facing a diagnosis and treatment for cancer. There is extensive evidence across a range of cancers to demonstrate that compliance with treatment guidelines is reduced in comparison to younger patients. Compliance with guidelines in younger patients is generally high and, in recent years, the introduction of multidisciplinary teams and quality assurance programmes has increased guideline compliance with an expectation of improved outcomes. There is increasing recognition that failure to comply with treatment guidelines in older patients, results in under-staging and under-treatment in many cases is associated with poor outcomes. There are a number of potential reasons for this deviation from best practice and a key factor may be that clinicians perceive that a standard treatment may not benefit or be tolerated by older patients. A fundamental problem contributing to this phenomenon is the failure of research studies to include significant numbers of older patients. Previously, many studies have upper age limits for recruitment and therefore, it may not be appropriate to extrapolate the results of such studies to older patients. The incidence of comorbid conditions and frailty is increased in older patients which may reduce tolerance of certain therapies (for instance major surgery or chemotherapy) as well as reducing life-expectancy with increased rates of death from non-cancer related disease. Another factor

influencing treatment uptake may be the attitude of individual patients to certain treatments. In some situations, if patients are offered less disruptive or toxic treatments, they may choose these options in order to reduce the risk of side-effects or loss of independence.
Healthcare professionals may over-estimate the impact of chronological age on the acceptibility and tolerance of treatment in older patients as few oncologists will have received any training in the principles of geriatric medicine. In order to address this problem, a number of approaches should be considered. Clinical trials should be designed to focus specifically on older patients including those with comorbidity and frailty. The knowledge and skills of geriatric medicine should be extended to the management of older patients with cancer. This includes the introduction of comprehensive geriatric assessment (CGA) and appropriate targeted interventions to address reversible comorbidity in cancer patients. This may require the introduction of multidisciplinary oncogeriatric clinics to optimise patient care.

Society Session (Sun, 25 Sep, 16:45−18:15)
European Society of Gynaecological Oncology (ESGO)

220 INVITED
ESGO and the Future of Gynaecologic Oncology in Europe

Abstract not received

221 INVITED
How to Evaluate Targeted Therapy in Ovarian Cancer

Abstract not received

222 INVITED
New Targets for Personalised Medicine in Endometrial Cancer

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With lifetime risk among women of 2−3%, endometrial cancer is the most common pelvic gynaecologic malignancy in industrialized countries. Approximately 75% of cases are diagnosed at an early stage with tumour confined to the uterine corpus. Although most patients are cured by surgery alone, about 15−20% with no signs of locally advanced or metastatic disease at primary treatment recurs, with limited responsiveness to systemic therapy. In light of these recurrences, patients with localized endometrial cancer have 2 major needs: 1) adjuvant therapies that will reduce the recurrence rate, and 2) the ability to target these therapies to the patients most likely to recur. In addition, women with metastatic disease require more effective systemic therapy.
The most common basis for determining risk of recurrent disease has been classification of endometrial cancers into two subtypes. Type I, associated with good prognosis, accounts for the majority of cases and is associated with low stage and grade and endometrioid histology. In contrast, type II, is characterized by high stage, high grade and non-endometrioid histology and poor prognosis. However, the prognostic value of this distinction is limited, as up to 20% of type I endometrial cancers recur, while half of type II cancers do not. It is a paradox that despite the fact that several clinically validated prognostic markers are available in endometrial cancer, they are not yet systematically applied for treatment stratification. Also, recent studies have identified new potential targets for novel therapeutics in endometrial carcinomas, such as FGFR2 mutations, mTOR-PTEN changes and alterations in the PI3Kinase- and MYC signalling pathways. The current literature on epidemiology, aetiology, pathology, molecular alterations, staging, treatment and prognostic factors in endometrial cancer will be reviewed. Novel molecular markers will be presented in relation to a clinical case to illustrate how personalized therapy may be implemented for this large patient group in the future.

Society Session (Sun, 25 Sep, 16:45−18:15)
European Society of Breast Cancer Specialists (EUSOMA) − Age and Breast Cancer

223 INVITED
The Impact of Age on Breast Cancer Survival

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An estimated 12.7 million new cancer cases and 7.6 million cancer deaths occur in 2008 across the world. Breast cancer is the second most common cancer overall (1.4 million cases, 10.9%) but ranks 5th as cause of death (458,000, 6.1%). [1] In most statistics the risk of breast occurrence shows a complex pattern by age: the risk increases from the young-ages, where breast cancer is a quite rare disease, up to mead-ages, then it remains constant for some postmenopausal years and finally it increases again over the advanced ages. Age may affect also survival but the real phenomenon is obscured by other important determinants for the last decades. According to recently published EUROCARE-4 figures, breast cancer survival was significantly heterogeneous across Europe: for cases diagnosed in 1997–1999, the age-adjusted 5-year survival ranged from 73% in Poland to 85% in Sweden. [2] The trend in breast cancer age-adjusted 5-year survival in five European regions showed that, in the contest of a general improvement, patients in Eastern Europe had the highest improvement during 1991–2002 − from 60% to 73.9% − although survival in Eastern Europe remained lower than in the other European areas [3]. Over time the influence of age in survival changed because improvement was more evident for mature than elderly women, with however some discrepancies across Europe. Some heterogeneity in survival in relation to age at diagnosis may actually exist, even if this is lower in comparison to that showed by other solid cancers. For cases diagnosed in 1997–1999 in Europe as whole, 5-year relative survival was 77.6% in elderly patients (70−84 yrs) and 85.7% in middle-aged patients (55−69 yrs) [4].

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224 INVITED
Age, Screening and High Risk Groups Surveillance

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Breast cancer screening has been around now for more than 30 years and is available in most developed countries in various forms. Despite this wealth of experience there continues to be debate about who should be screened, what techniques are best and, indeed, whether screening is effective at all in reducing breast cancer mortality. There is also continuing debate about the side-effects of breast screening, including overdiagnosis, overtreatment, the anxiety caused by false positive results and the morbitity associated with needle and surgical biopsy for what proves to be benign disease.
There is consensus that breast screening does reduce breast cancer mortality, particularly when targeted at women age 50 to 70 years, but a wide range of opinion on overall benefit. In this age range there is reasonable consensus that for every eight women diagnosed with breast cancers through screening the outcome will not be affected in 6 (three would not have died of breast cancer anyway and three will die of breast cancer despite earlier diagnosis), one that would have died will not, and one represents overdiagnosis and overtreatment (the breast cancer would never have presented without screening). There is less evidence of mortality benefit in women over 70 but these data were from an era when life expectance was significantly less and there is emerging evidence that screening older women should be considered. Screening women younger that 50 does not reduce mortality to the same degree but there is evidence