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Speakers' Abstracts

Session 1. Cancer Prevention and Health Politics: Economical and other Controversies

S1

Modern cancer drugs – will they be affordable in the future?

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Abstract not available at time of printing.

S2

Optimal allocation of cancer directed financial resources – tensions between primary prevention, early detection, and treatment

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In most countries, the allocation of financial resources for cancer prevention, early detection, and treatment come from different non-related 'silos'. In many low-income countries, primary prevention benefits have the greatest economic return since the cancer benefits are intertwined with other major health conditions. Examples include cervical papilloma virus vaccine (cervical cancer and HIV), hepatitis B control via vaccine or improved sanitation (hepatoma and cirrhosis), and tobacco control (lung and other cancers and coronary disease). In most affluent countries, beneficial cancer viral associated vaccines are (wisely) widely available if not optimally utilized. Tobacco control via taxation and social engineering (e.g. bans in workplaces and restaurants) have been beneficial across the relative affluence spectrum. The magnitude of the additional cancer burden and costs from the failure of primary prevention due to the increasing frequency and severity of obesity is still evolving. In 2009, the American debate about 'health care reform' and early detection guidelines exploded into a political firestorm. At a minimum, this debate fostered a recognition that the current early detection methods have recently minimally improved, that over-diagnosis, unneeded procedures and anxiety need to be more forthrightly acknowledged. The last 20 years in high-income countries, there has been an explosion in demand and the costs of cancer drug (or biologic) therapy, a similar growth in some forms of radiation, yet minimal change in surgical costs for primary disease control. Cancer drugs are now the world leader (over cardiac) of any class of medications. While three have been true blockbusters (trastuzumab, imatinib, rituximab), essentially all drugs introduced in this period have strained budgets or are simply unaffordable. During the next decade, the growth in genomic profiling and biologic imaging using PET may or may not lead to more selective and/or shorter courses of therapy in both the adjuvant or advanced setting. Genomic profiling may dramatically decline in costs especially if SNP profiles prove valuable. Thus, more targeted use based on genomic or metabolic profiling, as well as more explicit

consensus and expertise in palliative care may help to 'bend' the current unrelenting cancer care cost curve yet expand benefits.

S3

Lessons learned from prevention programs: expectations, observations and possible considerations

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It is mandatory to compare cost and consequences of health care services if public support is requested. This will apply to all health care services. As the demand for prevention will always exceed the available resources we have to identify and implement effective & efficient prevention programs. For identification we need appropriate criteria but the right criteria can be selected only if we realize that our expectations from prevention programs are higher than what is observed. New considerations may, therefore, be necessary to make progress with our prevention programs. The expectations of different partners of the health care system are different. Healthy and ill citizens expect the maintenance of health from prevention programs while politicians and health care professionals expect additional advantages. Interactions between these expectations complicate their understanding. The risk of ineffectiveness is higher and the conduct of valid studies is more difficult in 1' than 2' or 3' prevention. Examples will be presented. The reduction of breast cancer incidence by behavioral changes is suggested but could not yet be confirmed in clinical trials. The recommendations of the US Prevention Services Task Force had to be adapted recently (regular breast cancer screening only in the age of 50, screening only every other year, neither encouraging nor teaching breast self examination and no mammography beyond 75. Consequently, we should differentiate structural markers (such as histology and size of a lesion) from functional markers (such as quality of life and survival). Mixing these markers may lead to inadequate disease management. Self-limiting disease (SLD) may exist frequently in some types of cancer. SLD might be likely when screening brings about a discrepancy between incidence and mortality. A simple approach is to compare statistics in countries with high and low screening rates. These theoretical considerations will lead to practical recommendations. Molecular screening should not be used in the healthy population as true positive cases cannot be differentiated from true positive SLD and false positive cases. The molecular profile of patients with early cancer should be correlated with the clinical course and treatment. Multivariate statistics will identify the impact of tumor biology and treatment on the clinical course. It should be mandatory for doctors who offer breast cancer screening to report risk factors to the national data base. This information ought to be available also for women who refuse mammography. The information is essential for a correct interpretation of mammography data. It can