New aspects of supportive care: The MASCC vision

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ABSTRACT
The Multinational Association of Supportive Care in Cancer (MASCC) was founded in 1991, and joined forces with the International Society of Oral Oncology (ISOO) in 1998. The "mission" of MASCC is to optimize supportive care in cancer patients worldwide, stimulate multi-disciplinary research, encourage international scientific exchange of information, expand professional expertise in supportive care, educate health care professionals worldwide in supportive care, and to serve as a resource for patients, families, and caregivers. Ten years ago, the most frequently addressed supportive care symptoms included pain, febrile neutropenia, and the prevention of nausea and vomiting. These topics are still indeed relevant for cancer patients, but today focus has also turned to topics such as mucositis, and specific supportive care problems in the elderly. Recent, studies have indicated that individually targeted supportive care therapy might become an important part of clinical practice in the near future.

KEY WORDS: Health Services; Medical Oncology; Palliative Care; Neoplasms
The prevention of acute chemotherapy-induced emesis has been revolutionized by the use of serotonin3-receptor antagonists, and a new group of antiemetics, the neurokinin1-receptor antagonists, have further optimized antiemetic prophylaxis, thereby improving quality of life in patients receiving chemotherapies (6). Consequently a recent consensus conference, with the participation of 25 investigators, representing 9 different cancer organizations (including MASCC), has updated the 1997 MASCC guidelines. The updated guidelines are already published on the MASCC web site (2) and will soon appear in the journal of Supportive Care in Cancer.

In the past few years new areas of supportive care have emerged. The alliance between MASCC and ISOO has resulted in highly effective integration of science used in the investigation of mucositis and in the development of evidence-based guidelines (7). Also supportive care in the elderly has become a major focus area. The elderly population increases and it has for years been recognized, that elderly patients with cancer deserve special attention, whether they receive therapy with curative intent or they need palliative therapy for terminal cancer (8).

Pharmacogenetic research has led to the development of individually targeted therapy for some cancer diseases. E.g. the understanding that a single factor, such as mutations in the tyrosine kinase moiety of the epidermal growth factor, is responsible for tumor growth, has led to the development of drugs like imatinib (chronic myeloid leukemia and gastrointestinal stromal tumors) and gefitinib (lung cancer). The recognition that variations in the metabolic pathways of cytotoxins and supportive care drugs (e.g., antiemetics) are clinically relevant, has led to the exploration of molecular targets for the improvement of symptom management. Innocenti and coworkers recently published a trial investigating the significance of genetic variants in the UDP-glucuronosyltransferase 1A1 (UGT1A1) gene. They showed that variation in this gene predicted the risk of severe neutropenia after treatment with irinotecan, a drug using UGT1A1 in its metabolic pathway (9). The importance of the cytochrome P-450 enzyme system has also been verified in the antiemetic setting. Competition for the same metabolic pathways and gene variations can in theory lead to either rapid metabolism, and thereby a decrease in the effect of an antiemetic, or to poor metabolism, resulting in increased toxicity. Kaiser et al. investigated 270 patients receiving chemotherapy and antiemetic therapy with a 5-HT3 receptor antagonist (tropisetron or ondansetron) known to be metabolized through the CYP2D6 isoenzyme (10). They genotyped the patients and showed that genetically defined ultrarapid metabolizers had a higher frequency of vomiting than all other patients. They concluded that antiemetic therapy with a 5-HT3 receptor antagonist could be improved by adjustment for the CYP2D6 genotype.

In the future, when genotyping methods become cheaper and consequently generally available, individually targeted supportive care therapy will probably become an important part of clinical practice.

**REFERENCES**