



## Position paper

### THE ROLE OF COMPLEMENTARY AND ALTERNATIVE MEDICINE (CAM) AND INTEGRATIVE ONCOLOGY IN THE CONTEXT OF CANCER

There is hardly another disease with so profound an impact on all levels of life of a human being as cancer. Cancer is a disease with multi-factor aetiology, uncertain prognosis and course of the illness and often involves multi-morbidity. Cancer now accounts for a quarter of all deaths and is the number one cause of death for people aged 45-64 in an increasing number of EU countries.<sup>1</sup> A 2016 study estimated that health expenditure on cancer increased continuously from €35.7 billion in 1995 to €83.2 billion in 2014 in the EU, and spending on cancer drugs increased from €7.6 billion in 2005 to €19.1 billion in 2014.<sup>2</sup> Cancer is therefore a major challenge for any health system.

Most of the costs are caused by the treatment of the primary disease (surgery, chemotherapy, radiation) and do not include the huge efforts necessary to cover the secondary problems following the diagnosis of cancer. In an analysis of the US National Cancer Institute in 2010, the authors stress that in addition to the development of new treatment technologies much greater effort has to be spent in prevention, “to advance the science of cancer prevention and treatment to ensure that we’re using the most effective approaches,[...]which is especially important for elderly cancer patients with other complex health problems[...]<sup>3</sup>”.

#### **Patients with cancer using Complementary and Alternative Medicine (CAM)**

Patients with cancer often use CAM methods such as acupuncture, meditation, herbs, and dietary supplements in addition to their conventional cancer treatment. The use of these methods in Europe is estimated to be 37% but varies considerably across the different European countries, with higher prevalence in German-speaking (41%) and Mediterranean (39%) countries and lower prevalence in the United Kingdom (32%) and Scandinavia (31%).<sup>4</sup> According to a systematic review<sup>5</sup> the prevalence of any CAM use (since cancer diagnosis) in children with cancer ranged from 6% to 100%.

---

<sup>1</sup> [https://ec.europa.eu/info/research-and-innovation/events/special-features/world-cancer-day\\_en](https://ec.europa.eu/info/research-and-innovation/events/special-features/world-cancer-day_en)

<sup>2</sup> Jönsson B et al (2016). The cost and burden of cancer in the European Union 1995–2014. *European Journal of Cancer*, 66:162-170

<sup>3</sup> <http://www.nih.gov/news/health/jan2011/nci-12.htm>

<sup>4</sup> Horneber M et al (2012). How many cancer patients use complementary and alternative medicine: A systematic review and meta-analysis. *Integrative Cancer Therapies*, 113:187–203.

<sup>5</sup> Diorio C et al (2017). Global Use of Traditional and Complementary Medicine in Childhood Cancer: A Systematic Review. *Journal of Global Oncology*, 3(6):791-800.

A study by Evans et al. (2007)<sup>6</sup> showed that the majority of participants accepted and valued their conventional clinical treatment, using CAM alongside it rather than instead of it, and that they turned to CAM for additional support in the following areas:

*1) Desire for active participation in treatment*

To counter a sense of passivity sometimes experienced in the acceptance of conventional treatment. Patients want to make active choices. Using CAM provides an avenue for self-help and enables them to regain a sense of control in the face of an uncertain future.

*2. Desire for good communication*

In the Evans study patients reported experiences of poor communication with oncologists, revolving around lack of time to talk in depth, difficulty in 'making a connection' with clinicians and finding it hard to formulate and ask questions. CAM health professionals provide the time patients need to express themselves and for good communication.

*3) To relieve side effects of cancer treatment or symptoms of cancer*

Patients report an improvement in their subjective state of health after using CAM therapies, experiencing an increase in energy, better sleep quality and a reduction in fatigue and depression. CAM treatments relieve side effects of conventional treatments: a reduction of nausea, vomiting, skin reactions, pain and the need for analgesic medicines and also a reduction in the number of hospitalizations for serious side effects.

*4) Desire for a more holistic approach*

Patients may perceive conventional treatment as limited to the disease and not geared to their individual needs. In addition to the highly developed oncology programmes, many patients want and need psychological, emotional or spiritual support and they value the more individualized 'whole-person' approach with an emphasis on self-healing that typifies many CAM therapies. They report a reduction in stress, depression, anxiety and panic attacks, feel more able to relax, and experience 'peace of mind', greater mental clarity and a positive attitude on their future life through using CAM.

*5) To reduce the spread of the disease and prolong life*

While improving quality of life is the major rationale for CAM use, there is a definite undercurrent of expectation, particularly among the younger patients, that some therapies might have an anticancer effect (prolongation of remission periods) and slow/stagnate tumour growth (prolongation of survival periods), and boost the immune system, making it easier to overcome the disease.

---

<sup>6</sup> Evans MA et al (2007). Men with cancer: is their use of complementary and alternative medicine a response to needs unmet by conventional care? *European Journal of Cancer Care*, 16: 517–525

### **Integrative oncology**

In response to the increasing role that people with cancer and survivors have in managing their own care, the growing usage and evidence-base of CAM, and the importance of a therapeutic alliance between conventional cancer care and CAM that respects the treatment preferences and values of patients, the concept of **integrative oncology** has emerged within hospitals and community settings. It is defined as *“a patient-centred, evidence-informed field of cancer care that utilizes mind and body practices, natural products, and/or lifestyle modifications from different traditions alongside conventional cancer treatments. Integrative oncology aims to optimize health, quality of life, and clinical outcomes across the cancer care continuum, and to empower people to prevent cancer and become active participants before, during, and beyond cancer treatment.”*<sup>7</sup>

The Society for Integrative Oncology (SIO)<sup>8</sup> is “the premier multi-disciplinary professional organization for integrative oncology, whose mission is to advance evidence-based, comprehensive, integrative healthcare to improve the lives of people affected by cancer.” SIO has consistently encouraged rigorous scientific evaluation of both pre-clinical and clinical science, while advocating for the transformation of oncology care to integrate evidence-based complementary approaches. The vision of SIO is to have research inform the true integration of complementary modalities into oncology care, so that evidence-based complementary care is accessible and part of standard cancer care for all patients across the cancer continuum.

### **Growth of Integrative Oncology**

There is a steady growth in the number of cancer centers offering integrative oncology in North America, Australia, and Western Europe<sup>9</sup>. A large majority of the 45 National Cancer Institute (NCI)-designated comprehensive cancer centres in the USA now offer integrative oncology services both within the hospital setting to inpatients and outpatients and at other community locations for outpatients, including acupuncture and massage (73.3% each), meditation and yoga (68.9% each), and consultations on nutrition (91.1%), dietary supplements (84.4%), and herbs (66.7%). Over the last decade integrative oncology in the USA has grown by 30%. The Memorial Sloan Kettering Cancer Center provides a comprehensive website on natural products and other complementary therapies – MSK About Herbs<sup>10</sup>, which has had over 20 million visits to date.

Europe as well has seen a significant increase in the number of cancer centres offering integrative oncology. A mapping study conducted in 2013<sup>11</sup> captured those public health services providing integrative oncology services. Information from 123 (52.1 %) of the 236

---

<sup>7</sup> Witt CM et al (2017). A Comprehensive Definition for Integrative Oncology. Journal of the National Cancer Institute. Monographs, 1;2017(52).

<sup>8</sup> Retrieved from <https://integrativeonc.org>

<sup>9</sup> Grant SJ et al (2019). Integrative Oncology: International Perspectives. Integrative Cancer Therapies, 18(1): 1–11

<sup>10</sup> <https://www.mskcc.org/cancer-care/diagnosis-treatment/symptom-management/integrative-medicine/herbs>

<sup>11</sup> Rossi E et al (2015). Complementary and alternative medicine for cancer patients: results of the EPAAC survey on integrative oncology centres in Europe. Support Care Cancer, 23:1795-1806

cancer centres contacted found that nearly half of the responding centres (47.5%) provided integrative oncology services. These services were predominantly provided by the public health sector (69.9%), followed by a smaller number of privately owned centres (19.6%). CAM treatments are also commonly used by patients in a complementary fashion in private consultations with CAM health professionals. Treatments most often used in Europe include anthroposophic medicine, homeopathy, acupuncture, herbal medicines, vitamins/minerals, nutrition, and relaxation techniques.

The Joint Action “European Partnership on Action against Cancer” (EPAAC) was an initiative started by the European Commission in September 2009 with the support of many partners and co-funded by the Health Programme of the European Union. One of the deliverables collected and reviewed the evidence on the use of Complementary Medicine in oncology and proposed criteria for a correct dissemination of the information for clinicians, patients and decision-makers; to map the European structures/centers which provide services of integrative oncology (the mapping study mentioned in the previous paragraph) and put them in network activating synergies and a permanent co-ordination among the centers of integrative oncology. It is titled "Complementary and alternative medicine (CAM) in cancer care – Development and opportunities of Integrative Oncology" and available from the EPAAC website<sup>12</sup>.

### **A developing evidence base**

The evidence base for the effectiveness of CAM for psychological support, symptom control in cancer and adverse effects of conventional cancer treatment is increasing. Reviews that have been published of the evidence of acupuncture, homeopathy, mistletoe therapy, herbal medicine or other naturopathic treatments, and aromatherapy/massage for cancer patients suggest that CAM therapies may have benefits on measures of Quality of Life, psychological wellbeing, adverse effects of cancer treatments, and may impact on survival<sup>13</sup>.

Numerous references on the effectiveness of CAM therapies can also be found at CAM Cancer, a web resource hosted by NAFKAM, Norway's National Research Centre in Complementary and Alternative Medicine.<sup>14</sup> It is led by an international panel of experts in CAM/Integrative Oncology research and/or cancer care. NAFKAM is located at the Institute for Community Medicine, Faculty of Health Sciences, UiT – The Arctic University of Norway and is a World Health Organization collaborating centre for Traditional Medicine.

The Society of Integrative Oncology (SIO) publishes online monthly updates of relevant literature<sup>15</sup>. Each month, SIO Research Committee co-chairs select recent papers to be listed on

---

<sup>12</sup>

[http://www.epaac.eu/images/END/Final\\_Deliverables/D5\\_Complementary\\_and\\_alternative\\_medicine\\_CAM\\_in\\_cancer\\_care\\_development\\_and\\_opportunities\\_of\\_integrative\\_oncology.pdf](http://www.epaac.eu/images/END/Final_Deliverables/D5_Complementary_and_alternative_medicine_CAM_in_cancer_care_development_and_opportunities_of_integrative_oncology.pdf)

<sup>13</sup> Rossi E et al (2017). Add-On Complementary Medicine in Cancer Care: Evidence in Literature and Experiences of Integration. *Medicines (Basel)*, 24;4(1).

<sup>14</sup> <http://cam-cancer.org/en>

<sup>15</sup> <https://integrativeonc.org/recent-research-findings>

the website, based on search criteria that focus on original clinical research in human populations spanning a full range of CAM modalities. SIO has also published several Integrative Oncology Practice Guidelines. Experts who specialize in defined categories of integrative or complementary therapies were asked to review the scientific literature and categorize the interventions into specific levels of utility that take into account the methodological strength of supportive evidence, benefits versus risks, practicality, and value.

In 2009 SIO issued the first evidence-based clinical practice guidelines<sup>16</sup> for doctors to consider when incorporating CAM therapies into the care of cancer patients. These guidelines clearly advocate evidence-based complementary therapies that support patients through their standard anticancer treatment, help reduce adverse effects, and improve their quality of life. More recently, the Society published guidelines for the care of breast cancer patients<sup>17</sup>, which conclude that “there is a growing body of evidence supporting the use of integrative therapies, especially mind-body therapies, as effective supportive care strategies during breast cancer treatment. Many integrative practices, however, remain understudied, with insufficient evidence to be definitively recommended or avoided.”

### **Conclusion**

EUROCAM takes the position that CAM approaches can be safely used as a part of integrative oncology, in particular to mitigate disease symptoms and side effects of conventional treatment. It also helps provide social, psychological and nutritional guidance for patient re-integration and rehabilitation. A multidisciplinary approach is of paramount importance.

CAM can contribute to the care and treatment of patients with cancer through:

- Supportive treatment of cancer symptoms (in particular vomiting and pain) and symptoms due to primary tumour-reductive treatments
- Supportive treatment for anxiety, fear, depression
- Supportive treatment for social re-integration, coping and active life-management
- Advise in life-style changes, nutrition, and team-building with several professional groups
- Offering a positive prospect for the future

In addition, CAM has the potential for the primary and secondary prevention of cancer through counselling on healthy lifestyle, nutrition and supporting the human power of ‘salutogenesis’<sup>18</sup> throughout life.

### **EUROCAM February 2020**

---

<sup>16</sup> Deng et al (2009). Evidence-Based Clinical Practice Guidelines for Integrative Oncology: Complementary Therapies and Botanicals. *Journal of the Society for Integrative Oncology*, 7: 3, 85–120

<sup>17</sup> Greenlee H et al (2017). Clinical Practice Guidelines on the Evidence-Based Use of Integrative Therapies During and After Breast Cancer Treatment. *CA Cancer Journal for Clinicians*, 67(3):194-232.

<sup>18</sup> Antonovsky A (1996). The salutogenic model as a theory to guide health promotion. *Health Promotion International*, 11: 11–18