

This article originally appeared in the Canadian Association of Naturopathic Doctors' Vital Link Journal, Fall-Winter 2014 Issue. Opinions expressed in this article are not necessarily those of the editors, the CAND nor its board of directors.



Editorial: Naturopathic Medicine and Integrative Oncology

Dr. Dugald Seely, ND, FABNO

Naturopathic doctors (NDs) work in a time when chronic disease is the major health issue we face and cancer is taking an increasingly large role. As a profession, we will be dealing with a huge influx of people living with cancer in the context of relative diminishing conventional services. A recent report by Medscape Oncology indicates that in the USA by 2025, oncology services provided by our conventional colleagues will have grown by 28% whereas need for these services will have grown by 42%.¹ These numbers are based on U.S. statistics but equally reflect the situation in Canada.

Factors contributing to growing demand for naturopathic medicine in cancer care include increases in cancer incidence, patient longevity, and recognition of the value NDs offer.

Our focus on environmental influences, the mental-emotional sphere, treating root cause, and particularly a whole-person approach to care is a great value to patients and one that is increasingly recognized.

Cancer related mortality is the leading cause of death in Canada responsible for 30% of all deaths annually, superseding the next three main causes of death including heart disease, stroke, and lower respiratory diseases combined.² Aging is by far the greatest contributor to diagnosis and our society supports a demographic 'boomer' bubble that is entering their late 60s. With this curve on the horizon it should come as no surprise when cancer incidence begins to spike exponentially. The increasing diagnoses related to aging is compounded by better management of the disease and people living longer with the disease and thus requiring more health care services overall.

Through earlier detection of certain cancers, particularly breast, and some improvements in treatment that extend life, our health care system has shifted towards more long term chronic management of the disease. This approach which includes 'survivorship' care covers a wide spectrum from diagnosis, active treatment, prevention of recurrence, palliation and end-of-life care. The upshot to this change

is that we are facing a tsunami of people living with cancer that is just starting to hit our clinical shores. With over half of people living with cancer seeking complementary medicine,³⁻⁶ there is a huge demand for the services that naturopathic doctors can provide. Indeed, within the field of integrative oncology, naturopathic doctors have played a leading role and are perfectly placed to continue this trend. Not only can we offer our patients incredible support and effective care, but we can also speak the language of our conventional colleagues and communicate with them to improve care and reduce anxiety regarding safety and rationale for use. Ultimately if such communication is enhanced NDs could gain recognition as valuable partners and providers of responsible effective care.

We need to support naturopathic clinicians to be actively engaged in caring for our patients in a way that is safe, well informed, and effective. In this context it is a rich and exciting time to be practicing. Our range of therapies and base of evidence has grown substantially. In addition, the profession has leading associations such as the Oncology Association of Naturopathic Physicians (OncANP) and the Society for Integrative Oncology (SIO) who are building on the knowledge base and delivering the training needed to best serve the profession and public.

Integrative oncology

First defined by Dr. Stephen Sagar in 2006, "Integrative oncology combines the discipline of modern science with the wisdom of traditional healing. It is an evolving evidence-based specialty that uses complementary therapies in concert with medical treatment to enhance its efficacy, improve symptom control, alleviate patient distress, and reduce suffering."⁷ Additional elements of integrative oncology that reflect the principles of naturopathic medicine include the focus on patient needs, an individualized approach, and the application of whole-person care that deals with much more than just the pathology of disease. NDs are trained to be experts in complementary medicine as well as understanding the language, science and diagnostics of western medicine. Effectively educated, NDs are perfectly placed to help bridge the gap between complementary and conventional care and indeed have something special and unique to offer our patients.

Within the context of providing cancer care, NDs often work with the patient and support them in their utilization of the conventional health care system and its various therapies as well as our own. This is not to say that we should not provide care for patients who wish to only use our therapies, but we should be well informed

of the strengths and weaknesses of our medicine as well as that of conventional medicine. Through knowledge and experience we can guide our patients in a way that best serves them without judgment and without coercion. We are not here to serve the system and be subservient to our conventional colleagues but rather to offer the patient the best we can in their quest for quality of life and to overcome the disease or simply grapple with it with greater peace and equanimity.

In caring for our patients, we have a responsibility to truly understand what they are going through and being given at the hospital and to understand the effectiveness and limitations of the conventional therapies they are undergoing. One of the major roles we take on is that of an information broker who can help guide our patients in decision making and the knowledge to better understand what they are facing. For example, a recurring question I see is whether my patients should choose to undergo chemotherapy or not and to what degree will this offer real improvement in terms of survival and quality of life. In fact, there are many who do not trust the conventional health care system and see standard medical care as best avoided entirely. Sometimes the best service I can provide is to demystify surgery or chemotherapy and give my patients enough information to get them to understand that this may be their best option and that I will support them in every way I can through the process. On the other hand, sometimes the best I can do is support their choice to not pursue conventional therapy if the benefit is low and they are most interested in quality of life. That said, I believe that providing true alternative care is only possible if the patient is well informed of all options including the limitations of the care I might be able to provide them as well.

Naturopathic oncology

There are so many ways in which we can play a role in caring for people living with cancer that touches on the physical, psychosocial, and existential or perhaps spiritual depending on the patient's and practitioner's orientation. Selecting the right mixture of therapies, information, and support is critical and like any clinical encounter depends very much on each unique situation. Our toolkit is large and includes active listening, nutritional advice, targeted natural therapies, physical medicine, and lifestyle counselling to name a few. For NDs trained and able to use more aggressive therapies the options open further to include a variety of IV therapies, other injectable medicines, hyperthermia, and therapeutic metabolic oriented diets.

People living with cancer pose some of the most challenging cases for our profession. From my perspective no other situation brings forward the need for a truly holistic approach encompassing mind, body and spirit that we so often speak of. Those with stage IV disease often face a fragile imminent mortality and experience an array of physical, mental, emotional and spiritual symptoms that we are asked to help navigate. These patient encounters are humbling and profoundly enriching at the same time. There are definitely times of frustration, self-doubt, and often real sadness in clinic, but the process of caring for these patients overall is one that is deeply educational and rewarding.

At this year's fall retreat and board meeting of the Oncology Association of Naturopathic Physicians, we laid out a definition for naturopathic oncology as the following. *"Naturopathic oncology is the application of the art and science of naturopathic medicine in the field of cancer care and treatment. Furthermore, naturopathic oncology is a vital component of a comprehensive whole-person approach to cancer care that spans from prevention through treatment and into survivorship."*

The goals in naturopathic oncology will of course vary depending on context. In the case of supporting patients during active oncology care at the hospital, the focus is usually on sustaining them through the process and offering symptomatic support and/or prophylactic treatment. In the face of surgery we aim to support the healing process, reduce the negative impact on immune function, provide pain control, reduce adhesions, and speed recovery and tissue repair. When a patient is undergoing chemotherapy, things to look for include: developing neuropathies, mucositis, neutropenia, digestive dysfunction, fatigue, nausea, and potential organ toxicities. With radiation therapy, emphasis may be on reduction of collateral tissue and organ damage like that to the heart; reducing fatigue; and providing support for skin damage.

Along with active treatments at the hospital, oncologists have their own adjunctive medicines that we need to be aware of both in the context of symptomatic support and also with respect to potential interactions. Examples are broad and consist of numerous agents including: immunostimulants (e.g. neupogen and neulasta), steroidal anti-inflammatories (e.g. decadron and dexamethasone), anti-nauseants (e.g. zofran and stemetil), pain killers (e.g. lyrica and morphine), and aids for constipation (e.g. colace and sennokot).

After active care at the hospital, patients are increasingly receiving longer lasting therapies that they may have to take for years and require our understanding. These may be hormonally related as in the case of estrogen receptor positive breast cancers (e.g. tamoxifen and letrozole) or androgen dependent prostate cancer (e.g. Lupron and Zoladex). Other examples include a growing list of non-cytotoxic chemotherapy agents like the monoclonal antibodies and tyrosine kinase inhibitors. These newer drugs target characteristic genetic signatures on certain cancers (e.g. Herceptin for Her2/Neu positive breast cancer, and Gleevec for chronic myeloid leukemia exhibiting the Philadelphia chromosome). These are only a few examples of what we may be faced with and it is important to be aware of them to better guide our patients effectively.

When it comes to our treatments, principle targets for naturopathic oncology include the following broad areas: supporting the immune system, reducing inflammation, enhancing programmed cell death (apoptosis), having specific cancer cell cytotoxicity, supporting a healthy terrain, hindering metastatic and angiogenic processes, influencing epigenetic oncogene expression, and more recently targeting the unique metabolism of cancer. For each of these broad areas, there are a variety of therapies we have at our fingertips. Amongst many other issues, the challenge and art of our

medicine is when to apply these therapies, how many to provide, their affordability for patients, and when to discontinue them. All in all, our therapies, sometimes subtle, sometimes aggressive, have the potential to aid greatly in symptom control and promising evidence supports our approach as hindering cancer progression and metastasis.

The articles in this and other issues of the *Vital Link* will give more life to the therapies and their evidence but I would stress that we have a number of interventions available to us that can and do have a powerful beneficial clinical impact both for symptomatic support and for their active anticancer effects. Some examples of oral natural health products that have varying degrees of evidence include: curcumin, green tea, melatonin, immunogenic mushrooms, astragalus, alpha lipoic acid, fish oils, vitamin D, berberine, quercetin and modified citrus pectin to name but a few. When it comes to intravenous therapies, promising ones include the use of vitamin C, alpha lipoic acid, curcumin, artesunate, glycyrrhiza glabra, and Myer's cocktail. Venturing further towards off label use of prescription medications there are potential anticancer applications for dichloroacetate, metformin, aspirin, calcium channel blockers, low dose naltrexone and no doubt many others. How and when to apply these therapies safely requires knowledge, training and experience and an awareness of how the evidence on these therapies constantly evolves.

Application of evidence based medicine in naturopathic oncology

Having many therapies and modalities that can be applied clinically; it is a challenge to know when, what, and how to apply particularly when we may be uncertain to what degree or not our patients are responding. Resources from which we can draw in making our decisions include the experts we've learned from, the evidence in the medical literature, and our own clinical experience.

Cancer research and the evidence base is a rapidly changing landscape and I would suggest we are cautious regarding the certainty with which we interpret the available evidence. Promising therapies have frequently proven to not have much benefit regardless of how compelling the idea behind it was initially. We need to be open to this possibility even when it comes to our *favourite* intervention. What is perceived as true today may well change and it is crucial that we stay current with the literature and what our colleagues are witnessing. In evaluating the evidence we should be careful as well to not overestimate value from single studies and especially so when evidence only comes from preclinical studies. All too often, therapies with a powerful biological rationale that look good in the lab never amount to anything after being applied in humans.

While the limitations to applying an evidence based practice are enormous, we should also be cognizant of the limitations of a faith based practice perhaps even more. Just as we critique our MD colleagues, as NDs we should have an eye to the evidence and not hold on dogmatically to our beliefs. Constant questioning and a

RESOURCES FOR CLINICIANS INTERESTED IN CANCER CARE

- OncANP membership – provides access to online chat room, referral listing, webinars, discounted access to annual conferences, committee membership and involvement, process for application and testing to write the exam leading to designation as a Fellow to the American Board of Naturopathic Oncology (FABNO). oncannp.org
- Society for Integrative Oncology (SIO) – conferences, collaboration with others in integrative oncology field for referral and research opportunities. integrativeonc.org
- Naturopathic Associations – CAND, OAND, and others for conference and continuing education seminars in cancer care.
- Seminars given by active and experienced members of the profession.
- Textbooks: numerous excellent resources including those written by Neil McKinney, Lise Alschuler, Sylvan Schreiber, Donald Adams, Elena Ladas and others.
- CTCA residency for additional training – a FABNO recognized residency

skeptical attitude are healthy, especially when it comes to our own beliefs. Just because something has been handed down from expert to student doesn't make it true and we must be ever mindful not to fall into the trap of a belief based approach to care that is more reminiscent of a religion than medical practice. The evidence based approach to medicine while imperfect holds clues and important information to glean when selecting therapies and recommending them to patients particularly as the cost/benefit ratio rises.

Need for adequate training

Just as there is a great need for clinicians who can effectively address cancer; there is an equally large need for good education in naturopathic oncology. As we see increasing demand for naturopathic cancer care so do we see greater educational needs. To strengthen clinicians' ability to address this need, the OncANP is advocating for stronger core cancer education in the colleges' four year curriculum. Fortunately, there are many avenues that a clinician can follow to get additional learning in this area outside of the accredited colleges. Places for additional education include the conferences put on by national (both AANP and CAND) associations as well as provincial and state conferences. The most focused and intensive coverage occurs at the annual conference put on by the Oncology Association of Naturopathic Physicians (OncANP) held in February.

The most accessible and useful resource for NDs interested in learning about cancer care is the OncANP. I encourage anyone who has any exposure to cancer patients to become a member of this group. Beyond the conferences, the OncANP provides rich and

frequent content and support from peers that is unparalleled. There is an email chat group which is collegial, active, and offers multiple clinical pearls and discussion. The group also has a seminar series, tumour boards, case discussion and referral support by website. The OncANP has spearheaded the development of a fellowship program through an educational platform and testing that allows clinicians to up their level of education through applying and writing the exam for the American Board of Naturopathic Oncology to achieve fellow status.

Final thoughts

Naturopathic doctors have so much to offer with respect to mainstream care for people living with cancer with the potential to greatly improve their quality of life, act synergistically with conventional therapy, and extend life. With additional training in cancer care, NDs should feel confident that they can have a dramatic impact on the lives of their patients and change the course of their disease and how they cope with it. Ideally our care is integrated early on when the patient's vitality is strong and we can support them most going forward. At every stage of cancer, NDs have something to offer and we should not be shy in informing our conventional colleagues that we are here and provide excellent professional support to their patients even in the most advanced cases. Our profession needs to be proactively engaged in primary prevention and its research. When it comes to our principles, a proactive preventative approach is perfectly suited to: treating root cause, doctor as teacher, prevention, and enabling the innate healing powers of the body. Cancer in its many guises poses unique and difficult challenges to the clinician. Cancer care is an area that we all need to have some degree of comfort in and is so well suited to the application of naturopathic medicine at its best. I believe we will see our medicine and the application of naturopathic oncology continue to improve and be more widely accepted rapidly in the years to come. We need more clinicians working actively in this area. 🌱

About the Author

Dugald Seely is a naturopathic doctor and the executive director of the Ottawa Integrative Cancer Centre (OICC). He also serves as the director of research for the Canadian College of Naturopathic Medicine (CCNM). Dr. Seely completed his M.Sc. in cancer research at the University of Toronto and is a Fellow of the American Board of Naturopathic Oncology (FABNO). As a clinician scientist, Dugald has been awarded competitive grant and trainee funding from CIHR, CBCRA, the SickKids Foundation, the Lotte and John Hecht Memorial Foundation, the Ottawa Regional Cancer Foundation, and the Gateway for Cancer Research. Dr. Seely has led numerous research projects and most recently secured funding for the largest integrative naturopathic cancer care clinical trial in North America. In addition to clinical research, Dr. Seely has conducted and supervised dozens of synthesis reviews and meta-analyses with the goal of building on the growing body the evidence that supports

integrative oncology. Dr. Seely has published more than 50 Medline indexed peer-reviewed publications and believes strongly in the ability of evidence-based medicine to effect positive change in the health-care system.

References

1. Nelson R. ASCO Makes Dire Predictions for the Future of US Cancer Care. *Medscape*. Mar 12, 2014.
2. Government of Canada. Statistics Canada webpage. <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/hlth36a-eng.htm> 2011 data. Accessed Nov 3, 2014
3. Balneaves LG, Bottorff JL, Hislop TG, Herbert C. Levels of commitment: exploring complementary therapy use by women with breast cancer. *J Altern Complement Med* 2006;12:459–66.
4. Eng J, Ramsum D, Verhoef M, Guns E, Davison J, Gallagher R. A population-based survey of complementary and alternative medicine use in men recently diagnosed with prostate cancer. *Integr Cancer Ther* 2003;2:212–16.
5. Molassiotis A, Fernandez-Ortega P, Pud D, et al. Use of complementary and alternative medicine in cancer patients: a European survey. *Ann Oncol* 2005;16:655–63.
6. Gansler T, Kaw C, Crammer C, Smith T. A population-based study of prevalence of complementary methods use by cancer survivors: a report from the American Cancer Society's studies of cancer survivors. *Cancer* 2008;113:1048–57.
7. Sagar SM. Integrative oncology in North America. *J Soc Integr Oncol*. 2006 Winter;4(1):27-39. Review. PubMed PMID: 16737670.



BIOIDENTICAL HORMONE THERAPY

- Individualized Treatment • Thyroid & Adrenal Imbalance •
- BHRT Education for MDs & NDs • Hormone Level Testing (Saliva) •
- Urine NTx: Bone Loss Assessment Testing •
- Physicians Network Across Canada for Patients •
- MD Partnership Program for NDs •

DONNA KINGMAN
DIRECTOR OF BUSINESS DEVELOPMENT & COMMUNICATIONS

DIRECT: 647.884.0663 | FAX: 1.866.418.9343

donna@trubalancehealthcare.com

www.trubalancehealthcare.com