Functional Medicine, a Systems Wide Approach To Health Care

Over the time that man has worked to meet the medical needs of our various populations dealing with problems such as diseases and trauma the various cultures on our crowded planet have evolved differing philosophies, scientific explanation and style of medical practice.

The last 120 years or so has predominately favoured what is referred to as the western or reductionist approach, during which time we have seen tremendous gains in knowledge and comprehension of physiology, biochemistry and immunology. The results have been seen in the development of vaccines, medicines and sewerage management, all of which have contributed to substantial benefits in limiting the destruction wreaked on our populations from numerous diseases, infectious agents and trauma.

Although these therapeutic interventions have been the key element in saving millions of lives each year and in reducing some of the serious complications that often follow infection, they actually do not modify the probability of becoming ill (except in so far as early treatment reduces the risk of spread of infection to others). In chronic diseases, this type of intervention actually produces the paradoxical effect of increasing the absolute morbidity level. Non communicable diseases including cardiovascular diseases, diabetes, obesity, cancer and respiratory diseases account for a frightening 59% of the 57 million deaths annually and 46% of the global burden of disease (WHO 2008).

In the last few decades this ‘Western’ style of medicine has run into some troubled waters, in particular the well verbalised and heavily defended concept of 'one disease - one target - one-size-fits-all' is slowly shifting towards a more personalised medical approach in which medicines become tailored to individual needs. In part this is driven by the pharmaceutical industries ‘dirty little secret’ that drugs work in less than 50% of people who use them and their need to redevelop long exhausted patents by tailoring drugs to specific genes.

"The vast majority of drugs - more than 90 per cent - only work in 30 or 50 per cent of the people," Dr Roses worldwide vice-president of genetics at GlaxoSmithKline (GSK) said. "I wouldn’t say that most drugs don’t work. I would say that most drugs work in 30 to 50 per cent of people." (Dec 8 2003. Independent)

Interestingly, and in the context of balance we should also understand that these variations exist in response to natural medicines such as herbs and nutrients. This variation reflected in response to herbs and medicines are also driven by the genetic code found in the commensal bacteria we harbour in our digestive tract. Let’s take the herb ginseng as an example, for although the human gut can’t absorb the ginsenosides, some of the bacteria that live there can, and it is their partially broken down products that then deliver their therapeutic benefit.
As we know the human gut is home to trillions of individual microbes representing thousands of species of bacteria and non-bacterial organisms called archaea. The exact membership of this highly complex ecosystem, known as the microbiome, varies from person to person and is affected by the foods, drinks and medications as well as our early life and on-going life’s exposures and stresses.

The new evolving approach to health care exemplified by the philosophy of functional medicine may now include the use of multiple therapeutic agents including drugs and the concomitant or stand-alone use of nutritional, psychological and lifestyle factors when deciding the best course of treatment.

In particular this approach has become favoured for the prevention and management of chronic non communicable diseases. The intellectual underpinnings for such a transition in medical practice are being laid in the discipline of systems science - and systems biology in the biomedical domain.

Systems science aims to understand both the connectivity and interdependency of individual components within a dynamic and non-linear system, as well as the properties that emerge at certain organisational levels. The relation to medicine is clear. Systems biology is particularly useful when it comes to describing homeostasis - the regulation of a system’s internal environment to maintain a stable condition. In turn, the ability to cope with changing environments and stress is encompassed in the principle of allostasis - the physiological or behavioural changes required to stabilise the biological system and maintain health.

'Health'. The current World Health Organisation definition of the term is based on a 1948 consensus: “A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” However, an emerging concept of health in the scientific literature describes an ability to adapt and self-manage in the face of social, physical and emotional challenges. These concepts are embodied in the techniques and strategies that underpin the functional medicine approach to clinical care.

What is Functional Medicine

Functional medicine addresses the underlying causes of disease, using a systems-oriented approach and engaging both patient and practitioner in a therapeutic partnership. It is an evolution in the practice of medicine that better addresses the healthcare needs of the 21st century. By shifting the traditional disease-centered focus of medical practice to a more patient-centered approach, functional medicine addresses the whole person, not just an isolated set of symptoms.

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Functional medicine practitioners spend time with their patients, listening to their histories and looking at the interactions among genetic, environmental, and lifestyle factors that can influence long-term health and complex, chronic disease. It seeks to understand how major body processes have been challenged over a lifetime and how changes in diet and lifestyle may better support these vital body functions. While the strength of the approach is prevention it has a powerful application in the management of symptoms and illness. In this way, functional medicine supports the unique expression of health and vitality for each individual.

The Institute for Functional Medicine in conjunction with its lead sponsor Nutri-Link and Clinical Education are once again bringing their unique 5 day training to the UK. Applying Functional medicine in Clinical Practice™ (AFMCP™-UK).

**Functional medicine** is anchored by an examination of the core clinical imbalances that underlie various disease conditions. Those imbalances arise as environmental inputs such as diet, nutrients (including air and water), exercise, and trauma are processed by one’s body, mind, and spirit through a unique set of genetic predispositions, attitudes, and beliefs.

The fundamental physiological processes include communication, both outside and inside the cell; bioenergetics, or the transformation of food into energy; replication, repair, and maintenance of structural integrity, from the cellular to the whole body level; elimination of waste; protection and defence; and transport and circulation. The core clinical imbalances that arise from malfunctions within this complex system include the following key body systems and are addressed during the AFMCP™ in a coordinated and integrated fashion:

**What is the AFMCP™-UK**

This 5 day course is an intensive learning experience. It is designed to teach you how to apply the fundamental principles of functional medicine in clinic.

AFMCP™-UK is not a typical medical meeting. Now in its 15th year, this five-day course has been rigorously designed, critically evaluated, and continuously refined by an outstanding core faculty, each of whom brings diverse and subject-specific clinical expertise to the application of functional medicine.

Applying Functional Medicine in Clinical Practice™ (AFMCP™-UK) teaches healthcare practitioners to more effectively integrate science, research, and clinical insights to treat and prevent disease and maintain health. Established and emerging diagnostics, therapeutics, and prevention strategies are extensively covered, including the use of diet, nutraceuticals, exercise, body/mind techniques, and the adaptation of lifestyle to an individual’s genetic risks and environmental exposures.

AFMCP™-UK is a well-orchestrated, comprehensive, patient-centered education program that helps you deepen your clinical understanding and practical application of the Functional Medicine Matrix Model.
Topics include:

- Gastrointestinal dysfunction and its links to chronic disease
- Inflammation and immune dysregulation
- Hormonal imbalance including adrenal, thyroid, and sex hormones
- Insulin resistance and cardiometabolic syndrome
- Oxidative stress, mitochondrial dysfunction, and neurological disorders
- Toxins, toxicity, and impaired biotransformation
- Food sensitivities, allergies, and intolerances
- Nutrition assessment and the Nutrition Physical Exam

Attendees at the 1st UK symposium stated:

“The faculty speakers managed to present a vast amount of scientific information in a very short time. Their extensive knowledge and insight into the world around them was inspiring. I hope we can follow their lead.”

“The toolkit is an absolutely wonderful gift from this week’s course. I am looking forward to using the timeline and matrix with my clients as well as the various other handouts. The timeline and matrix in particular will be so beneficial in getting a more in-depth insight into what may be going on and helping to keep track, as well as a very valuable instrument in putting a treatment protocol in place.”

If this is something you are interested in learning about or simply updating your current knowledge, as well as meeting and networking with peers and colleagues, then do visit www.afmcp-uk.org to learn more, or call Nutri-Link direct on 08450 760 402 to find out more about this course being held in London from the 30th April until the 4th May 2012.

This will be the only AFMCP course held outside of the United States in 2012 and will not be repeated until 2014, unless you travel to the USA.