To begin in the middle. For legal reasons I start with a disclaimer: despite the title, I do not by any means imply that everyone mentioned in this article is a quack in the word’s pejorative sense. My aim here is to outline some of the unorthodox claims for the cure of cancer that achieved prominence in the Australian public eye over the last 30 years or so, to the extent of seriously interfering with the normal practice of cancer medicine. Some of those making such claims might fittingly be labelled as ‘quacks’, others not.

Human beings have always sought easy and safe methods of treatment for illness, understandably so. The uncomplimentary term ‘quack’ for a peddler of nostrums (simple remedies) arose in the 17th century as short for quacksalver, a hawker who sold quicksilver (mercury) as a cure for syphilis. In the American west in the 19th century rival travelling salesmen dispensing snake oil tried to outdo one another with claims that their product cured the widest range of conditions. One for example, prepared from ‘pure rattlesnake oil’, was said to be beneficial for ‘headache, neuralgia, toothache, earache, backache, swellings, sprains, contracted cords, stiff joints, cuts and bruises and all aches and pains’. While we may wonder, 150 years later, what was meant by ‘contracted cords’, more relevant to the current topic is the claim that this product was effective for ‘swellings’, a description which could well have been intended to deceive.

Confusingly, treatments that do not conform to standard Western notions of appropriate medical care have been described in many different ways. Use of the term ‘complementary and alternative medicine’ (CAM), an all-embracing phrase which was introduced about 10 years ago, has reduced the confusion. However ‘complementary’ and ‘alternative’ are not the same. Complementary treatments are used along with conventional medicine whereas alternative treatments are used instead of conventional medicine. For most their real value is not known as few have been subjected to high-quality scientific studies. Many surveys have shown that cancer patients worldwide are heavy users of CAM. Because definitions vary, comparisons are not simple, but one relevant to the current topic is the claim that this product was effective for ‘swellings’, a description which could well have included some types of cancer.

One claim often made by proponents of CAM is that their treatments are ‘natural’ and therefore, by implication, harmless or at least less likely to have side-effects than conventional pharmaceuticals. However to suggest that because something is ‘natural’ it is axiomatic without toxicity is specious: there are many natural products that are toxic and dangerous, such as snake venom, many plants and tobacco. Unless subjected to thorough testing, the true rate of side-effects of any product - ‘natural’ or artificial - cannot be known. On the other hand, many anti-cancer medications included in the modern pharmacopoeia are derived from plants, either directly or as synthetic variants, including vincristine from the periwinkle, etoposide from the mandrake plant and recently taxanes such as paclitaxel (Taxol) from the pacific yew tree.

Soon after I returned to Australia in the mid-1970s after several years overseas training, I was met by remarkable headlines, particularly in the now defunct Melbourne newspaper Truth, claiming that a refugee from Czechoslovakia working in New Zealand was achieving remarkable success in treating cancer. According to reports, the wicked NZ medical hierarchy though was suspicious of these claims and was trying to have this modern Semmelweis deregistered. In a case with remarkable similarities to several more recent ones, Milan Brych was strongly supported by an irresponsible media. His journey from Czechoslovakia to New Zealand, Queensland, the Cook Islands and eventually to jail in California is fascinating and instructive.

Milan Brych escaped to Austria at the time of the anti-communist uprising of 1968 - the so-called ‘Prague spring’ - and its subsequent suppression by the forces of the Warsaw Pact. On arrival in NZ he claimed to be a doctor and cancer specialist. His name was not in the published list of graduates of his professed university because, he said, it had been removed as punishment for his anti-communist activities. In the cold war atmosphere of the time he was believed by some authorities in NZ, even though in fact Czech universities under communism never lost their autonomy to that extent.

So he was registered as a medical practitioner and, after a period in junior appointments, worked in a cancer centre in Auckland. It wasn’t long before word got out that he was administering a secret remedy, possibly prepared in his home kitchen and according to some, achieving remarkable successes. Thanks to heroic efforts by a number of senior physicians in NZ, especially Professor Peter Scott, the fact that he had been in jail as a confidence trickster during the time he claimed to have been at medical school was revealed, and after a long series of delays he was struck off the NZ medical register in 1974. (It seems he had some knowledge of medicine because for a while he had worked as a laboratory technician.) But this wasn’t the end of the matter. The NZ Supreme Court reinstated him and it wasn’t until three years later, in 1977, that Brych finally abandoned his legal defence against appeals by the NZ Medical Council, by which time the matter had again reached the NZ Supreme Court. He then moved to the Cook Islands, a tiny Pacific Ocean nation where the parliament
passed an amendment to the local Medical Act to allow him to begin his cancer practice immediately on arrival. There he set up his new clinic, and with strong encouragement from the Truth, patients from Australia and NZ flocked to him. To me it brought about feelings of sadness that patients could be so easily misled into believing that the only person in the world who had the cure for cancer was working on a remote Pacific island. His presence ultimately caused such a local scandal that an election was fought over it. Brych’s supporters lost and he was forced to leave the Cook Islands. In the meantime so many patients had died and been buried there that the cemetery became known as the ‘Brych yard’. During this period his case was taken up by the Premier of Queensland, Joe Bjelke-Peterson, who wanted him to set up a clinic in Brisbane. It took a courageous effort by other politicians, particularly the Queensland and federal Ministers for Health, Dr Llew Edwards and Dr Ralph Hunt, respectively, to block such a move. Brych next fetched up in California where he obviously couldn’t change his behaviour, as in 1983 he was jailed there for several years for practising medicine without a licence.

Why was he such a success for a while and why was he able to generate such support? Although his actual methods are not known for certain, as he never revealed them despite many promises that he would, it seems that in addition to his secret brew he used cyclophosphamide, vincristine, other chemotherapeutic agents and steroids at a time when chemotherapy was in its infancy and the specialty of oncology barely existed. Indeed, few would disagree now that, at the time, the profession dealt poorly with advanced cancer. There is little doubt that some patients who were told ‘nothing more could be done’ did gain temporary benefit from his ministrations. Almost certainly though better results were available to those patients who were able to find their way to the early oncology departments of the time. Furthermore, those working with him tell stories of overdoses, deaths from septicaemia, severe peripheral neuropathy and other complications. He was obviously extremely charismatic - his eastern European accent seems to have given him an air of mystery. As in many such cases the staid, conservative medical profession was accused of hampering progress and of being instinctively opposed to anyone with radically different ideas. This case, the most unambiguous example of quackery and local medical fraud in our recent history, contains many lessons. Milan Brych was clearly a charlatan. However the profession itself was not blameless. More widespread recognition of the potential benefits of chemotherapy and more widespread availability of clinical trials would have made newer anti-cancer treatments available to more patients, many desperate to try anything that offered some hope. If we tell our patients ‘nothing more can be done’, it is no wonder that some then turn to those that promise otherwise. And it’s never true to make such a statement; to do so is to confuse ‘cure’ with ‘care’.

The next widespread phenomenon in the CAM world in Australia was Ian Gawler. This young veterinary surgeon who claimed that the cure for cancer was a small Pacific islander who could produce a brew he used cyclophosphamide, vincristine, other chemotherapeutic agents and steroids at a time when chemotherapy was in its infancy and the specialty of oncology barely existed. Indeed, few would disagree now that, at the time, the profession dealt poorly with advanced cancer. There is little doubt that some patients who were told ‘nothing more could be done’ did gain temporary benefit from his ministrations. Almost certainly though better results were available to those patients who were able to find their way to the early oncology departments of the time. Furthermore, those working with him tell stories of overdoses, deaths from septicaemia, severe peripheral neuropathy and other complications. He was obviously extremely charismatic - his eastern European accent seems to have given him an air of mystery. As in many such cases the staid, conservative medical profession was accused of hampering progress and of being instinctively opposed to anyone with radically different ideas. This case, the most unambiguous example of quackery and local medical fraud in our recent history, contains many lessons. Milan Brych was clearly a charlatan. However the profession itself was not blameless. More widespread recognition of the potential benefits of chemotherapy and more widespread availability of clinical trials would have made newer anti-cancer treatments available to more patients, many desperate to try anything that offered some hope. If we tell our patients ‘nothing more can be done’, it is no wonder that some then turn to those that promise otherwise. And it’s never true to make such a statement; to do so is to confuse ‘cure’ with ‘care’.

The next widespread phenomenon in the CAM world in Australia was Ian Gawler. This young veterinary surgeon who was cured of osteogenic sarcome in the 1970s believed his cancer to have been caused by improper thinking and wrote and spoke widely of his belief that he had cured his own cancer through meditation and the adoption of a variety of diets and herbal treatments, including coffee enemas. He was encouraged in these beliefs by a prognosis given him by someone in the medical profession that he had only two weeks to live. (A lesson that one must never give a prognosis containing an exact figure - any such figure will surely be wrong.) The profession was accused of being blind to the value of such alternative treatments and many patients spend long periods sitting in corners trying to mediate their cancers away, and in adopting diets of dubious nutritional value. Some of the claims he made in his books included the following about cancer, that meditation: ‘is the single most powerful tool to aid recovery from disease’; ‘allows the body to remove tumours’; and ‘increases quality & *quantity* of life’ [my emphasis]. Amongst his quaint recommendations were the ‘Grape Cure’; the herbs mistletoe; red clover and comfrey; coffee enemas; megadose vitamins and vitamin C; to adopt a ‘natural life’; to avoid chocolate; sexual excess and ‘too much television’; not to use a microwave oven; and to drink spring or rain-water.4

Gawler’s ideas were to a large extent based on the hypothesis that mental stress increases the risk of cancer, an attractive notion when one is seeking to explain the inexplicable. The evidence in favour of the concept, and of possible adverse influences of mental states on prognosis, even then were at best questionable but more recently the ideas have been fairly conclusively disproved.24 Indeed, there is some surprising recent evidence that mental stress may actually provide protection from cancer.9

Many of us at the time argued that Gawler’s ideas were unproven and some were potentially damaging, especially to the extent that patients adopted them as alternatives rather than as complementary to standard care, or spent a great deal of time on them to the detriment of their relationships. In the late 1970s and early 1980s his claims received enormous publicity and were quite disruptive to standard medical practice. One lesson for the profession was the need to provide patients not only with proven anti-cancer treatments but also with psychological support. In fact it could be said that the speciality of psycho-oncology and the more recent development of ‘integrative oncology’ arose to some extent out of pressure from people such as Gawler and his followers. To that extent at least Gawler has done the practice of oncology some real good. However, Gawler has not been completely frank in his description of the treatments he received. While he may have spent a lot of time on his own self-prescribed remedies, he also received orthodox treatment, although in his books and interviews he has played down their role in his cure. Like any anecdote, in a single case where a combination of treatment measures is used, it is quite impossible to say which one or more was responsible for the ultimate good outcome, even though the patient and his supporters may believe in the one and not the others. Subsequently there have been a number of publications which have shown that meditation, while often able to help patients cope with the exigencies of a serious illness, in no way can bring about cure or affect the biology of cancer. Indeed anyone with a basic knowledge of biology could have predicted such results, but it is easy to understand how desperate patients who lack biological or scientific training can accept such claims. Since then Gawler seems to have quietened down. His latest claims seem only that he can provide psychological support, claims which seem quite reasonable and helpful. He runs a ‘retreat’ in rural Victoria that promotes ‘inner peace’, a concept that is highly appealing and, provided no extraordinary claims are made for it, one with which it is hard to argue.

The two proposed treatments described above were home-grown, but the next widely disruptive alternative treatment was Laetrile, an extract of apricot pits said to be a vitamin, so-called vitamin B17. It became very popular in the United States
as well as Australia and enjoyed considerable political support. Its proponents strongly pushed the conspiracy theory, that the medical profession really knows the cause and cure of cancer, but denies this information to the public in order to increase profits for itself and its malign bedfellow the pharmaceutical industry. Whether it is this, or its cunning mislabelling as a vitamin (which, if true, would indicate it to be a nutritional requirement for all), or the false claim that cancer cells are susceptible to the cyanide in laetrile whereas normal cells are not, for whatever reason it has enjoyed great popularity in the US. When it was banned there after studies conclusively showed it to be of no value and indeed potentially dangerous,10-12 laetrile clinics were set up in Mexico just across the border from the US. They continue to operate. Indeed this substance is enjoying a resurgent popularity perhaps encouraged by a considerable internet presence. In the 1980s many Australian patients were so taken by the pseudo-scientific clap-trap that accompanied it that they were prepared to travel to Mexico for treatment, at great expense. Many others arranged its importation for personal use.

In the 1990s the alternative treatment that caught the imagination of many patients was shark cartilage. Its popularity was based on two myths, one, that sharks don’t get cancer and two, that it had shown unexpectedly good results in a trial in Cuba. In fact sharks do get cancer (but even if they didn’t, so what? By this logic we should all eat extract of spiders to prevent measles). Like many other popular forms of CAM this one too was the subject of a media bandwagon, this time by the American 60 Minutes program which claimed that 3 of 15 patients in Cuba had had excellent results. The American Cancer Society concluded that these results were ‘incomplete and unimpressive’. Even the National Center for Complementary and Alternative Medicine (which was set up by supporters in the US Congress) stated that this trial was too small and insufficiently detailed to draw any conclusion. Subsequent studies have convincingly shown that shark cartilage is useless for the treatment of cancer.13 In fact its proponents have been heavily fined in the US for false advertising in connection promotion of its use for cancer treatment. During its hey-day many Australian patients were persuaded to part with considerable sums to import it.

The most recent large Australian CAM phenomenon was again media-promoted, and was for an elderly WA doctor’s treatment with microwaves, radio waves and so-called ‘glucose blocking treatment’. Dr John Holt has used some version of this treatment with microwaves, radio waves and so-called ‘glucose blocking treatment’. During its hey-day many Australian patients were so taken by the pseudo-scientific clap-trap that accompanied it that they were prepared to travel to Mexico for treatment, at great expense. Many others arranged its importation for personal use.

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The most recent large Australian CAM phenomenon was again media-promoted, and was for an elderly WA doctor’s treatment with microwaves, radio waves and so-called ‘glucose blocking treatment’. Dr John Holt has used some version of this treatment for over 30 years and like many other methods discussed here, has enjoyed the patronage of leading politicians as well as the media. The National Health & Medical Research Council (NHMRC) carried out a study of his methods back in the 1970s and found them of no value.14,15 A controlled comparison of his methods with standard radiotherapy in the treatment of rectal cancer carried out during the 1990s concluded that “VHF microwave therapy in conjunction with radiotherapy produces no therapeutic advantage over conventional radiation therapy alone in the treatment of locally recurrent rectal carcinoma”.16 Most recently (2004) Dr Holt again came to public notice because of promotion on a popular television program, A Current Affair. All oncologists during this time had patients clamouring to fly to Perth for the treatment. In response to the public outcry, the NHMRC mounted a large scale investigation, lasting over a year and costing $250,000, which concluded that his treatment was in no cases better than standard treatment and for many types of cancer it was clearly worse. The report is available on the internet http://www.nhmrc.gov.au/news/media/rel05/holt.htm (accessed 17 October 2005).

In addition to these prominent forms of CAM that have taken Australia by storm, there are many others that have been or are presently being actively promoted, although not perhaps with the same extent of publicity. As reported elsewhere this was clearly shown by the offers and suggestions made to a prominent Australian politician when he developed cancer recently. Jim Bacon, Premier of Tasmania, developed lung cancer in 2004, and was inundated with offers and suggestions of CAM. While they included some that could be helpful such as meditation and sensible dietary advice, many of the proposals were quite wacky. They included an ‘energy cleaner machine’ and a ‘blood zapper’, a white food diet, a green food diet and liquorice (a black food diet perhaps?); colloidal silver and ‘stabilised oxygen’. This survey shows that many of our patients are under considerable pressure to adopt CAM and that an amazing variety of such treatments is available and being actively promoted in our community.17

There are more dangers in the use of CAM than is often recognised. They include for example malnutrition from unbalanced diets, cyanide poisoning from laetrile, electrolyte disturbances from coffee enemas and interference with standard treatments - the herbal anti-depressant St John's wort can reduce the effectiveness of the cytotoxic drug imitocan, which is used for the treatment of colon cancer. The 2003 Pan Pharmaceuticals scandal, when more than 1600 herbal and other preparations were taken off the Australian market because of evidence of incorrect labelling and inadequate quality control procedures, showed the need for better regulation of the ‘alternative medicine’ market.

How should the medical profession respond? How do we best protect our patients from misleading and potentially dangerous excursions when they seek the pot of gold at the end of the rainbow? We must firstly recognise that patients’ needs go well beyond the purely medical. Increasing numbers of large institutions world-wide are offering safe complementary therapies. Amongst the leaders of this movement is Dr Barrie Cassileth, a pioneer and strong advocate of the need for scientific testing of claimed alternative treatments. At the Integrative Oncology Service of the Memorial Sloan Kettering Cancer Center in New York, she offers patients complementary therapies which are backed by scientific evidence, such as massage and music therapy, and avoids potentially harmful or disproved therapies.18 In Australia similar support is available to cancer patients in Perth through the Browne Cancer Support Centre at the Sir Charles Gairdner Hospital,19 in Melbourne at the Peter MacCallum Cancer Centre and elsewhere at a limited number of other centres. Patients enjoy this type of supportive care which should be available at more of our large cancer hospitals.

The American Cancer Society (ACS) advises patients to ask a series of questions when confronted by suggestions from outside the orthodox profession. 1) Is the treatment based on an unproven theory? 2) Does the treatment promise a cure for all cancers? 3) Are you told not to use conventional medical treatment? 4) Is the treatment or drug a ‘secret’ that only certain providers can give? 5) Does the treatment require you to travel to another country? 6) Do the promoters attack the medical/scientific establishment? I would add a seventh
question: are you required to outlay a large sum? If the answer to any of these questions is ‘yes’, says the ACS, one should be quite suspicious and sceptical.

Unfortunately an old saying applies: there are no simple answers to complex questions. Progress takes a long time and hard work, but a century of cancer research is certainly starting to pay off. For example, as a result of knowledge gained over recent decades from clinical trials involving thousands of women with breast cancer, the mortality rate from this disease has dropped by half, so that two-thirds of newly diagnosed patients can now expect to survive 20 years or more and ‘to die of something else’. The first fruits of the molecular biology revolution are benefiting cancer patients, one striking example being the drug imatinib. This chemical agent, a product of painstaking laboratory research, blocks a factor responsible for tumour cell growth. Taken orally, it can dramatically shrink gastro-intestinal stromal tumours and bring about remission of chronic myeloid leukaemia.

The hope for our patients lies in more such research. The greater the number that enter clinical trials of new treatment the more will benefit directly and the quicker the answers will come to cure future patients. I pay tribute to the myriad of women in breast cancer trials, including many from Australia, whose participation has led directly to the major improvements in outlook for this disease which are now quite apparent. I particularly pay tribute to paediatricians treating childhood cancer, who over the past 50 years have been responsible for putting over three-quarters of their patients into clinical trials and thus rapidly having brought about the cure rate for childhood acute lymphoblastic leukaemia from nil to over 80%. The same dramatic improvements could be achieved for adult cancer patients in much less than 50 years if a similar large percentage entered clinical trials. This is something we and the cancer public must work towards.

References

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*The Medical Oncology Group of Australia/Pierre Fabre Award is granted annually in recognition of an outstanding contribution to the scientific study of cancer and/or to the control of cancer in Australia by an Australian scientist, clinician or other health care professional.

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