UPDATE ON PREVENTION
- An Introduction to Quaternary Prevention

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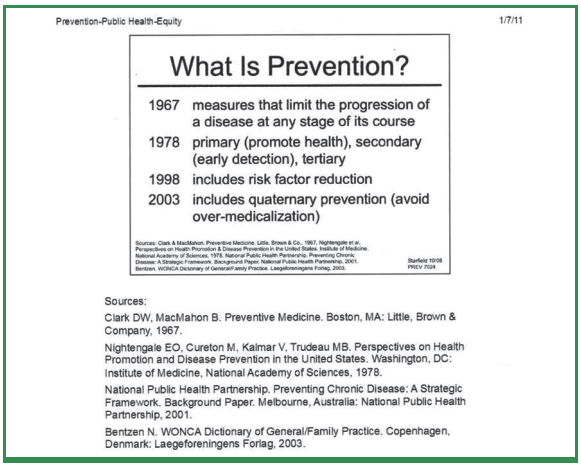
Background

Clinical Prevention has been organised in a chronological manner since the middle of the 20th century. A paradigmatic shift from a chronological to a relationship-based prevention organisation offers new insights into the work and, specifically, into the preventive activities of doctors, and brings to light the concept of quaternary prevention, a critical look at medical activities with an emphasis on the need not to do harm.



Definition of Quaternary Prevention (QP)

"Action taken to identify a patient or a population at risk of over-medicalisation, to protect them from invasive medical interventions, and provide them with care procedures which are ethically acceptable"

This definition was adopted by the Wonca International Classification Committee (WICC) during its Durham meeting in 1999. It has been published in the Wonca Dictionary for General Practice/Family Practice. A website was developed by the WICC for "Primary Health Care Classification Consortium" (PH3C) on QP activities globally. WICC members within the group will circulate information and movement about QP from all over the world. Members' participation on the website were most active from South America, continental and northern Europe.

Simple definitions for prevention by late Prof. Barbara Starfield in which Quaternary Prevention were also included.

The principle is the same as in other versions proposed by different authors. Prof. Starfield was internationally famous for her research in the Primary Care Assessment Test. She had prominent influence in the academic field of primary care in America. Nevertheless, activities of QP have not been as robust in the States as compared with South America and Europe. Hong Kong and the Asia Pacific Region are also very much lagging behind.

Who will practise QP?

When I started medical practice in Hong Kong more than 30 years ago, patients were mainly seeking for episodic treatment. Words of wisdom such as *"Prevention is better than cure"* was a popular slogan. Clinical prevention was meant for preventing progressive deterioration, recurrence or complications of diseases diagnosed (tertiary prevention). Textbooks on topics for General Practice were few in the local book-stores. I bought some books back from London. One of them was "Preventive Medicine in General Practice", first published in 1983, because the topic on prevention had not been taught formally in my undergraduate years. There were different chapters dealing in details with the principles and practice of preventive medicine, definitions of primary, secondary and tertiary prevention, as well as anticipatory care. There was no such term as Quaternary Prevention at that time.

With the arrival of internet communication, a huge volume of health information and activities of QP circulate everyday on the PH3C website. The quantity is enormous, the contents are broad and stimulating, at times provoking. Sometimes one may be dragged into more philosophical thinking such as the real contribution of modern medicine to people's health problems.

However, information and messages about QP are no longer restricted to academic medical journals for doctors. It has been spreading widely and quickly in major newspapers and media to the public. This is an important development for QP because it has become a topic of public interest.

The most striking incident about QP was the public announcement by the movie star Angelina Jolie's decision to have prophylactic double mastectomy because she was found to carry the BRCA gene. The impact was especially far-reaching because of her celebrity effect. It has made tremendous repercussions within the medical profession, not only those interested in QP, but also women all over the world.

In a health care system which is primary care led, the Family Physician is the first point of contact for patients with sickness, or healthy people for health issues. Our roles are many, as a healer, a coordinator of health care for patients, a health advocate as well as an educator to the public. Naturally, Quaternary Prevention has become one of the explicit roles of a Family Physician.

Interaction between clinical practice and prevention

The following quotations are taken from a paper by Dr Marc Jamoulle *"The relational view fits perfectly within the Wonca definitions of prevention"*

There is a diagrammatic model from the article illustrating the relationship view of QP with the three other fields.

Figure 1. **Four fields of the patient-doctor encounter based on relationships. The doctor looks for diseases. The patient could feel ill. Timeline is obliquely oriented from left to right, from alpha to omega, from birth to death. Anyone will become sick and die, doctors as well as patients. (Jamoulle 1986)**

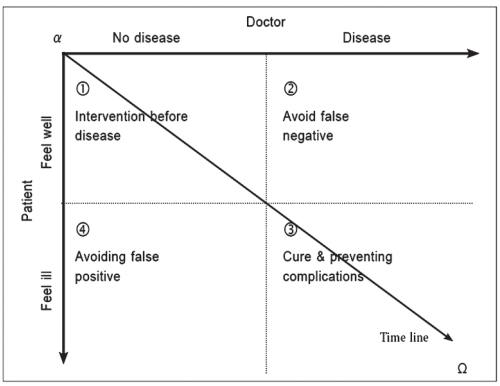
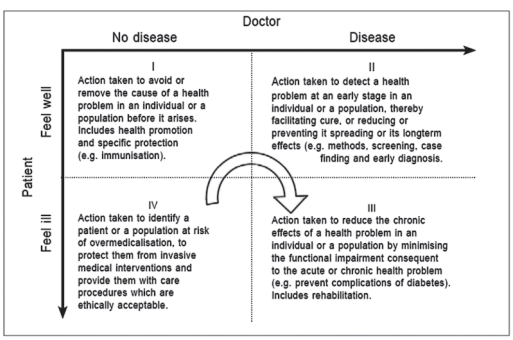


Figure 2: **The patient-doctor relationship is at the origin of the four types of activities. The arrow shows that the P4 attitude is impacting all the activity.**



And I quote his words:

"QP is a field of intervention, based on relationships, includes scrutinising all the continuous interventions doctors make to treat their patients, as well as to control their own anxiety and lack of knowledge."

Family Physicians know very well that we all have anxiety when faced with our patients presenting with some non-specific complaints such palpitation, chest discomfort, giddiness, drowsiness or even black-out. The action and reaction of a doctor at the consultation reflects the amplitude of clinical competency as well as the level of tolerance to uncertainty for that particular doctor.

"They also have to learn that sometimes, even though it may be difficult, it is better to do nothing rather than to pursue useless investigations trying to find a rare condition (the rule-out syndrome) or an emerging catastrophe. Hence, QP is a new term for an old concept and update to the motto: First, do no harm."

It is important to appreciate that our consultations will frequently overlap between clinical practice and preventive practice. I am going to share some common scenarios frequently encountered in general practice for the above statement.

1. We know that the chance of encountering a new patient with very high blood pressure due to phaeochromocytoma is extremely low in general practice. Therefore, one usually will not investigate in that direction to rule out this rare cause of hypertension. If it turns out subsequently that the patient was diagnosed with phaeochromocytoma by some other doctors, one should not feel guilty about missing this rare diagnosis.

2. Patients with chest discomfort are common in general practice. ECG would be ordered for the patients and frequently done in the clinic immediately. Usually there are no positive findings. Therefore, if the doctor suspects ACS in the patient, his decision to refer to a cardiologist, or his advice on more investigations, is a result of his clinical judgement, irrespective of the ECG findings. The decision-making and referral rate are dependent on the clinician's experience and tolerance to uncertainty. The risk and damage to those patients without cardiac problems but are referred to undergo more invasive investigations such as cardiac catherisation should not be under-estimated.

3. However, if one suspects a patient may be suffering from AMI in one's clinic, which carries a high mortality rate, ordering a clinic ECG instead of calling an ambulance for urgent transfer to hospital might cause irreparable damage to the patient due to the delay in treatment. This is clinical mis-judgement which may have medico-legal implications. Therefore, it is important to distinguish between the essence of QP from the daily clinical practice.

"In this sense, QP is aimed more at the doctor than the patient."
"QP involves the need for close monitoring by the doctor himself, a sort of permanent quality control on behalf of the consciousness of the harm they could, even unintentionally, do to their patients."

Public education and change in clinical practice

"Measures need to be taken in order to avoid patients slipping into the fourth field. Poor information from the internet is a source of anxiety and unjustified demand for care. Screening for prostate or breast cancer can throw patients into the fourth field if he or she becomes cancerophobic. A puzzling note in a treatment protocol can also trigger patient anxiety"

In the past, before the advance of FNAC, young women with a fibroadenoma will always be advised by surgeons to have excisional biopsy, despite the fact that malignant changes are rare. I had a young patient in the 20s who has had 2 excisional biopsies before she married. She consulted me before the 3rd planned episode as whether the procedure was a must.

What will you do?

1. I could say go ahead because one could not be 100% sure just by palpation. It is simple and easy, risk free for the doctor.

Or

2. I could explain to her the natural course of fibroadenomata, and give her the option for putting the fibroadenoma on observation. That meant doing nothing.

What would be the risk that I would have to shoulder on behalf of the patient if I told her not to take it out, against the opinion of a Surgeon?
What if a small cancer did develop a few years later just sitting close to the fibroadenoma?

Luckily, my patient is now happily married with 2 healthy children and both of them were breast-fed by her.

Knowledge, skills and attitude

Patient anxiety is always there if there are some health issues of concern. A doctor's reaction, facial expressions, body language or the way of talking may trigger more worries. This is especially true for cancer patients when they are faced with suggestions from oncologists as whether post-OP chemo, RT or a combination would be the best option to take? Does the oncologist mean that the cancer has spread?

Family Physicians should possess a set of skills which is essential when handling these situations. Sensitivity to a patient's feeling, good communication and rapport, attentive listening, empathy, long-lasting and mutually trusting relationship with the patient and the family are all important in order to provide integrated care to patients. Patients' autonomy and their right to refuse treatment, after having been fully informed of their choices, should be well-respected when we are offering our professional advice and treatment. The paternalistic style of medical practice has gone with the evolution of modern health concepts and the promulgation of patients' right to choose.

The above is an introduction of QP mainly in the context of prevention at the personal level which is one of the two categories in the definition of QP. I shall share with you my own reflection and thinking, after 2 years' of exposure to the scope and global movement of Quaternary Prevention.

Overmedicalisation and disease mongering

The other category in the definition of QP is the prevention for the population at large, which is more a public health issue, much broader, sometimes controversial and political. The goal is the avoidance of overmedicalisation.

The term "overmedicalisation" may sound vague to many. I will not elaborate with specific clinical scenarios. Nowadays, when we talk about end of life issues, a lot of people say that if they could have a choice, they would prefer to have a quick-fix, say AMI and die within a few days, rather than a long battle such as cancer accompanied with painful treatments; or being bed-ridden for years after a stroke with the body full of tubings. I personally feel such an attitude, apart from religious or philosophical thinking about life and death, is a reflection of an inherent fear of overmedicalisation.

People are more concerned with the quality of life especially at the terminal stage. Is modern medicine heading in the right direction to address these issues, or whether science has over-shadowed the humanitarian aspect of Medicine?

Population screening programmes will invariably involve public funding which is always precious and capped by government budget. Policy makers will need to balance the interests and demands from various groups of health care recipients. Opinions from health care providers are important and it has to be evidence-based with positive health outcomes supported by different measurements and statistics.

Disease Mongering is a derogatory term commonly used in the world of QP. There have been a striking diagnostic inflation and a corresponding increase in the use of psychotropic drugs during the past 30 years. The newly launched DSM-V has been accused of financial association with the pharmaceutical industry among the Panel members. The sheer blatancy of disease mongering activities with the latest edition of DSM-V, Big Pharma and corrupted marketing strategy,.. etc. have been exposed and widely reported in the media.

I would not quote specific reports of the above allegations. I am sure if readers are interested, you can easily find them in major newspapers or search in the internet.

Critical reading vs Scepticism

One could not help but ask questions such as:

1. Can patients still entrust the medical profession when dealing with their health problems?

2. Can we still believe those biased, pharmaceutical companies sponsored researches designed for marketing?

3. How can we practise medicine ethically?
The definition of QP has incorporated the ethical issue.
Who could set the standards of medical ethics?
Could it be taught or trained?

Fellow Family Physicians, I have some important questions which remain unanswered:

1. Are we organised and well-prepared for the task within our own discipline of Family Medicine?

2. Have we got proper training for the necessary knowledge and skill?

3. How much do we differ among ourselves in our attitude towards health, diseases and illness, risk tolerance; and our value for life and death?

Conclusion

I hope you will agree with me that most of us (I mean all Doctors) are practising Quaternary Prevention to some extent. It is just as simple as saying "No" to a patient requesting some kind of investigations due to fear or innocence.

We need collective effort and input to achieve a critical mass of Family Physicians sharing the same platform for the practice of Quaternary Prevention. We must understand and emphasise the importance of practising QP in a pragmatic way with local relevance. We should prepare to accept criticisms, but encourage intellectual, inter-professional exchange of views and opinions in various prevention issues, update clinical practice, proper public education on health informatics. We should be open-minded, try to foster multi-specialty collaboration rather than being over-sceptical with an antagonistic gesture.

We should remember the theme of the Hong Kong Primary Care Conference 2014– ***with the patients, for the patients.***