

Who needs Family Medicine? (In the curriculum)

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“*Well, after all we have Community Medicine. Doesn't that cover it?*”
“*Not exactly, no it does not.*” I respond.
“*You see the history of our medical courses is largely adopted from India*”, he goes on to explain. So goes a conversation I had with a renowned teacher of another university.

Claiming that Community Medicine covers Family Medicine in the undergraduate curriculum is something like claiming that Orthopaedics is covered by Surgery, or that Paediatrics is covered by Medicine. Yes, there are areas of overlap, but the distinctions are important. Community Medicine is essentially Public Health from a medical point of view, with the unit of analysis being a community. Family Medicine (General Practice) is essentially a clinical discipline, caring for individuals in the context of their family and community, and taking a keen interest in the health system that potentially maintains “population health”.

Why do Nepali medical schools take the Indian way of doing things so seriously? Does India provide an excellent model of health care, or simply a mushrooming commercialized model against the background of a fossilized medical education system? Note the health inequities in India, despite open access in the cities to specialists. If you have a headache, see a neuro-surgeon. Not so dissimilar to the health inequities of the USA, which has the world's highest per capita expenditure on health, and yet under-performs in indicators of the national health, in comparison to some western countries with (dare I say it) more socialized and regulated health systems, that typically use family doctors as the gate keepers and coordinators of the health care of individuals.

It is good that CNC Vellore has collaborated with IOM in Kathmandu and for several years now, has had candidates in training in the surrounds of Vellore, but appearing for the final exams of the MDGP programme held in Kathmandu. Hat's off to the MDGP's founding professor, Shatendra Gupta, now in Cairns, Australia.

What about the claim that Family Medicine covers Emergency Medicine? It is not a claim that could be

comfortably made in the cities of USA, Britain or Australia nowadays, with the rapid expansion and popularity of Emergency Medicine, as a distinct and vitally important discipline. Never the less, in the rural areas of these nations, communities depend on the assessment and life saving skills of family doctors.

In Nepal, however, it is the MDGPs who are heading up more and more major Emergency departments around the country. Simply put, there is no one better equipped to lead Emergency than the MDGP. Could it be imagined that Community Medicine would run the Emergency departments of the major hospitals? Our Community Medicine friends are not in the habit of intubating critically ill patients very often. They have other things to do. I predict that in due course, the same will be true for Nepal's family doctors. Only some will remain committed to Emergency Medicine as there are so many other things to do.

“What about Surgery then? Why do some MDGPs think they can do gall bladders?” To some extent I agree with the concern. There are only a few MDGPs who regularly perform general surgery at this level. If you ask them, they had particularly good opportunities to develop the skills in the first place, and they have nurtured them in towns where they are the surgical service. Of course there are a few stories of nightmare complications arriving at the big hospitals, but what about the uncounted lives saved because of surgery, especially caesarean section, provided by generalists in less than optimal environments, in the periphery of the country. I predict that eventually there will be enough surgeons for the districts and that a new generation of MDGPs will gladly refer their cases, since they will continue to have plenty of other things to do.

In the mean time (say 10-15 years) producing doctors with MD General Practice (IOM), Family Medicine (BPKIHS) and MD Family Practice (NAMS) will be the main strategy for strengthening the district hospitals, improving the emergency services of zonal hospitals. Surely, MDGPs will become ever more popular in the NGO and private sector. A quick multiplication of 75 districts x 23 MDGPs = 200, plus others say another 100. We need 300 of them! Then start counting the PHCs. I predict that one day;

the family doctors of Nepal will take less interest in hospital medicine as there will be full time “hospitalist” doctors doing that. Instead they will have plenty to do in clinics and practices, keeping people out of hospital. A quick multiplication for a country of 30 million people, at one MDGP for every 1500 people, comes to 20,000 qualified GPs. The story of the evolution of the discipline is hardly original; it is just what has already happened in other countries.

So back to the original question, “Who needs Family Medicine?” Firstly the people of Nepal need Family Medicine. They may demand specialists (plural), but they need a family doctor. They need a family doctor who will conserve their health rupee and use it cost effectively and compassionately. Secondly as Mary Lewis and colleagues point out, medical students need family doctors as teachers and role models. Just think about it – before medical schools there were generalist doctors who taught their apprentices. Then some generalists developed themselves as specialists. Then specialists clubbed together to provide superior training in the new medical school model, but the

product, MBBS, was and is, a generalist one. As the specialties become more and more technical and fragmented, we complain that our product, the soon to graduate doctor, has no idea how to really care for the patient as a person, or how to synthesise all that is supposed to have been learned in all the departments.

The solution is obvious. New medical students need exposure to real people as patients early in their course. They need exposure to generalist clinicians who model how to relate to the patient and who help to keep the specialized knowledge in the perspective of the whole. This is not to compete with specialist teachers, but to teach along side them. General Practice / Family Medicine should be core curriculum for all MBBS course in Nepal, (after all it’s a family business). Expanding the faculty is absolutely critical. Reconsidering the one to one rule of faculty to seats is necessary for multiplication of the GP training programmes, and is justified, because of the design of the training under many teachers of many disciplines, both in the teaching hospital and in community postings.

World No Tobacco Day 2005: the role of health professionals

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The theme for the World No Tobacco Day on May 31st this year is "Health Professionals against Tobacco". According to the 14 point code of practice on tobacco control agreed by the health professionals at a meeting organized by the WHO in January 2004, health professionals should be role models and denounce the use of tobacco in any form. The code further stresses that we should assess and address the tobacco consumption patterns and tobacco control attitudes in the community, support smoke free events and places, educate the public about the harmful effects of tobacco, include tobacco control in the agenda of all relevant health related Congresses and conferences, actively participate in the World No Tobacco Day every 31st of May, refrain from accepting any kind of tobacco industry support – financial or otherwise, prohibit the sale or promotion of tobacco products on their premises and encourage other members to do the same, actively support governments in the process leading to signature, ratification and implementation of this code of

practice, participate in tobacco control activities of health professional networks.¹

Nepal Medical Association had conducted some programmes in the year 1992 with the slogan "Smoking or Health ", and had got letter of appreciation from the WHO. However, the effort could not be sustained and today, after more than a decade, we are still struggling with a similar slogan for tobacco control. It is expected that the code of conduct outlined above will be practiced by the health professionals in a sustained way and contribute to controlling the use of tobacco and its products.

Cigarette smoking is the single most common cause of premature death which is preventable. It is said that cigarette smoking kills more people than alcohol, car accidents, suicide, AIDS, homicide and illegal drugs combined. In the United States alone, it accounts for more than 400,000 deaths annually², 120, 000 people in the UK smoke themselves to death in a year³. Although exact data about the

number of mortalities in Nepal due to cigarette smoking is not available, we can rest assured that the number is very high. Prevalence of smoking in Nepal in the year 2000 was 39.5% males and 23.8% females, and the same among the youth in 2001 was 15.3% for males and 6.4% for females³. People in our country not only smoke the branded filter cigarettes but they smoke anything from cheap non-filter cigarettes to *bidis*, and also chew tobacco in many forms. The total annual cigarette consumption in Nepal in the year 2000 alone was 7069 millions of sticks. In addition to the huge numbers of sticks of cigarettes that were manufactured in the country, we imported 90 millions sticks of cigarettes and 7350 metric tons of tobacco leaves in 2000³. These numbers are definitely shocking.

Cigarette smoke is packed with roughly 4000 chemicals many of which are toxic to our body and 60 of them are known carcinogenics. The three main ingredients of cigarette smoke are nicotine, carbon monoxide and tar. Nicotine is not carcinogenic but it is highly addictive, once inhaled nicotine can reach the brain within 15 seconds. Most smokers are addicted to nicotine and crave for cigarettes to feed this addiction. This is the key ingredient that keeps people spending their hard earned money on cigarettes and keeps tobacco companies in business. Carbon monoxide is an odourless and tasteless gas and once inhaled it impairs the smokers breathing. Inhaling too much carbon monoxide may cause coma and death by asphyxiation. Tar is a substance made up of various chemicals many of which are known to cause cancer. Around 70% of tar in cigarettes is deposited in the smoker's lungs. Other ingredients in cigarette smoke include acetone, commonly used as a nail polish remover, ammonia, commonly used in dry cleaning industry, arsenic, a poison used as an insecticide and pesticide, benzene, commonly used in the production of fuel and chemicals, cadmium, a poisonous chemical used in batteries and formaldehyde, a known carcinogen used to preserve dead bodies⁵. Manufacturers do not provide the public information about the precise amount of additives used in the cigarettes so it is difficult to accurately gauge the public health risk.

Cigarette smoking accounts for at least 30% of all cancer deaths. It is a major cause of cancers of the lung, the larynx, the oral cavity, the pharynx and the oesophagus and is a contributing cause in the development of cancers of the bladder, pancreas, liver, uterine cervix, kidney, stomach, colon and rectum and also some types of leukemias⁴. About 87% of lung cancers are caused by smoking and exposure to environmental tobacco smoke. But

cancers only account for half the deaths related to smoking. Smoking is a major cause of heart disease, lung diseases and stroke. It also has a damaging effect of women's reproductive system and increases the risk of miscarriage, prematurity, stillbirth, infant death and is a cause of low birth weight in infants⁵. Furthermore, smoke has a harmful effect on those around the smoker. The most common pathology caused by cigarette smoke is chronic obstructive airway disease which includes chronic bronchitis and emphysema. These ultimately cause Cor Pulmonale and may lead to congestive cardiac failure. It predisposes a person to atherosclerosis which may have dire consequences causing anything from myocardial infarction to ischemic strokes. Based on data collected from 1995 to 1999, the Centre for Disease Control, Atlanta estimated that adult male smokers lost an average of 13.2 years of life and female smokers lost 14.5 yrs of life because of smoking. It has also been reported that school performance of smoker's children was poorer than of their controls when measured in terms of their mean ability on theoretical subjects, they were more prone to respiratory tract infection and were also shorter in length by nearly 1 cm⁶

Unlike in developed countries the laws regarding tobacco and cigarette control are relatively non-existent in Nepal. Although advertising in certain media, smoking in government facilities, educational institutions, healthcare facilities, and on domestic and international flights are partially regulated, smoking in restaurants, bars, nightclubs and public places are unregulated. There is no regulation about advertising only to certain audiences (read adult), in certain locations. No regulations on the content of advertising, sales to minors, place of sale, sale of single sticks of cigarettes. There is no regulation regarding misleading information on the packaging or information about the tar and nicotine content of the cigarettes. No provisions of a tobacco control committee, tobacco education or anti smuggling provisions, no regulation about health warning on packets or the verification of age before sale of cigarettes³.

We as health professionals should always educate the public on the risk of cigarette smoking and should always provide them with the knowledge and the support which will help them quit smoking. The risk for coronary heart disease is cut to half after only a year without smoking; quitting smoking will reduce the likelihood of having breathing problems, lung and other cancers. To help a patient or a friend to quit smoking, there are techniques which will help them handle cravings to smoke.

There is still rampant use of tobacco in our society and we as health professionals have a responsibility towards the well being of our patients, friends, family and ourselves. We should support them to stop using tobacco and other related products from today itself. I hope that my endeavour to write this article on the "World No Tobacco Day" was beneficial in educating some of our colleagues about the ills of tobacco use, mainly cigarette smoking.

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Can we improve survival of patients with heart failure?

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Physicians are expected to practice evidence-based medicine. Properly designed clinical trials provide evidence for the effectiveness of management protocol. Therefore it is mandatory for the clinicians to be aware of the major clinical trials conducted all over the world. The electronic information technology can provide information in all aspects of medicine in a short period of time. Important clinical trials about the management of heart failure are included in this article. Clinical trials and medical audit can change the attitude of even the senior physicians with regards to adaptation of evidence based management protocol, which is well known to improve survival of patients with heart failure. The Myocardial Infarction National Audit Project (MINAP) has improved management of patients with MI in the UK.

According to National Institute of clinical excellence (NICE) guideline, heart failure is defined as a complex syndrome that can result from any structural or functional cardiac disorder that impairs the ability of the circulation. The presenting features could be breathlessness, fatigue and fluid retention.

Most of the patients with valvular heart disease, hypertensive heart disease and following myocardial infarction end up with congestive heart failure. Diabetic patients with Post-MI heart failure generally do not have good prognosis. The number of Post-MI heart failure cases is increasing even in our country and may be a big health problem in future as in the western countries.

After the coronary event, myocardial stunning and hibernation, early left ventricular remodelling and chronic neuroendocrine activation are expected developments. The deleterious long-term effects on the myocardium are caused by excess release of angiotension II, aldosterone and nor-alrenative. Therefore the use of angiotensin converting enzyme inhibitors, betablockers and aldosterone receptor blockers is recommended to prevent heart failure.

The early thrombolytic treatment on the primary coronary intervention with PTCA and drug eluting stents will minimise the infarct size and prevent Post-MI CHF in future.

Therefore the public should be made aware of the advantage of reducing the symptom to needle time of thrombolytic therapy as much as possible. Anti-platelet agents are recommended routinely. There is evidence of beneficial effect of statins in coronary artery disease even though the lipid levels are within normal limits.

Tandolapril cardiac evaluation (TRACE) study is a randomised controlled Danish trial, which has compared placebo and tandolapril. SAVE¹ (Survival and ventricular enlargement) study has shown the benefit of Ramipril in heart failure.

Carvedilol post infarct survival control in left ventricular dysfunction. (CAPRICORN)² trial tested the benefit of carvedilol compared with placebo, a 23% relative risk reduction in mortality with carvedilol has been documented.

Risk assessment of patients with non-ST segment elevation myocardial infarction by measuring troponin and B-type natriuretic peptide (BNP) concentration has been advised. TACTICS-TIMI18 study, (Treat angina with Aggrastat and determine cost of therapy with an invasive or conservative strategy - Thrombolysis in myocardial infarction) has shown advantage for troponin positive patients from early coronary angiography and revascularisation.

The multidisciplinary team approach to heart failure treatment is becoming popular in the western countries. In the USA, the cardiac hospitalisation atherosclerosis management programme (CHAMP) is a multidisciplinary hospital initiative involving nurse, doctors, medication advice, dietary advice and exercise counselling after myocardial infarction.

The multi-disciplinary approach of treating CHF has improved the compliance of the patients in accepting the evidence-based medicines in the USA.

In Nepal, clinicians have to convince the patients and also take the responsibility of advising regarding diet, drug and the exercise. At the same time, the health providers of our country should plan for the introduction of multi-disciplinary team approach of treating CHF in future.

In addition to antiplatelets and statins, Post-MI heart failure patients should receive ACE inhibitors, Beta-blockers and spironolactone in tolerable doses on long-term basis. Those patients who do not tolerate ACE inhibitors because of irritating cough, Angiotensin receptor blockers (ARB) should be advised.

Optimal trial in myocardial infarction with the angiotensin II antagonist losartan (OPTIMAAL)³ and Valsartan in acute myocardial infarction trial (VALIANT)⁴ have not shown superiority of Angiotensin Receptor Blocker to ACE inhibitors. However VALIANT trial has revealed that valsartan is as effective as captopril. Combination of valsartan and captopril has not been shown to be better than captopril alone. Patients with Left Ventricular Systolic Dysfunction (LVSD) and heart failure benefited by adding aldosterone blocker eplerenone in the Eplerenone neurohormonal efficacy and survival study (EPHESUS)⁵. A 15% relative risk reduction in all cause mortality has been shown by this trial.

Electrical devices have been introduced in the management of CHF patients where all other treatment options have failed. The MUSTIC⁶ (Multisite stimulation in cardiomyopathy) and MIRACLE⁷ (Multicentre In sync randomised clinical evaluation) trials have shown benefit from the use of implantable cardioverter defibrillator (ICDS). Mortality may be improved by the use of ICDS together with cardiac resynchronisation therapy (CRT) as shown in the COMPANION⁸ study (Comparison of medical therapy, Pacing and defibrillation in heart failure). REMATCH (Randomised evaluation of mechanical assistance for the treatment of CHF) clinical trial has shown short-term benefit with the use of left ventricular assist device (LVADS): Intra-aortic balloon pumping could provide a bridge to revascularisation by PCI or heart transplantation.

The use of the electrical devices mentioned above is restricted to a very few highly dedicated advanced cardiac centres and are expensive. Many on going studies may find better treatment option for CHF in future.

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Quo vadis – PG education?

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Some 30 /35 years ago it was said that the Nepali garage hand / mechanic was probably the best in the world. The reason for this claim was simply because at time the vehicles in Nepal consisted of British or American lorries or trucks, jeeps or cars. Besides these there were Russian, Chinese jeeps plus also French, German, Italian vehicles. The matter was compounded by the fact that those foreigners who had travelled to Nepal by road generally sold their vehicles here and flew back. Whenever these cars went out of order, these mechanics had to literally dismantle it piece by piece and then put it back the same way. Naturally they became very adept by this method of trial and error and could repair any vehicle in Nepal. They may be said to have followed the age old adage of Confucius who stated:

*Hear and forget,
See and remember,
Do and understand.*

At the time that the process of registration started in Nepal most of the doctors coming to Nepal had been trained in India. This was because in the effort to

help Nepal countries in the world offered scholarships in medicine so that the health status of the people of Nepal would improve rapidly. Thus newly qualified Nepali doctors from Russia, China, Poland, Germany, Egypt, Burma, UK and other countries returned back to work in the home country. In the hey days of the cultural revolution in China, they came back with the 3 year Medical Diploma or MD. Similar was the situation with the students of USSR and Eastern Europe. In such a situation the newly enacted Nepal Medical Council Act, 1964 registered all returnees who came back home to work.

Then came the concept of starting of our MD or medical diploma in 1978 in the context of the New Education System Plan. It is worthwhile quoting the founding Dean of the Institute of Medicine who wrote as far back as in 1979:

“There need not be any confusion about the name of this programme as Medical Science Diploma. Any apprehension may be due to lack of understanding of University Diplomas. In the international system of medical education, the primary medical degree for

practice as a physician is either called an MD (Soviet Union, Continental Europe, America, Israel, Thailand etc) or MBBS (UK, former British Colonies, etc.), the next i.e. specialisation degree being 'PhD in medicine' (therefore called Doctorate in medicine, MRCP, Masters in Surgery or FRCS in UK and former British Colonies, but may be still called a PhD as in Soviet Union). The MD or MBBS doctor holds a diploma of a University and is a University Diplomat e.g. the Diploma of MD of the universities in France. While our MD will be equivalent to TU Master's Degree from non-technical Institutes and our TU Medical Science PhD Specialisation or Research Degree of the future will be equivalent to other PhDs, being a Medical Science Doctorate of Philosophy, the FRCS or MRCP are themselves Diplomas.(1)"

By the time that the medical graduate degree of TU was awarded it was no longer medical diploma or MD but instead MBBS.

Following on the heels of undergraduate education we have reached a point where there are specialists who may be Diploma or Degree holders of different specialities or even subspecialties. It may be recalled that some countries endow 'Diplom', whilst others degrees. Thus both these words have different meanings or connotations in different countries. This is compounded by the fact that non-university institutions such as Conjoint Boards, Royal Colleges, Professional groupings and even Associations sometimes give such diplomas of proficiency. These are given after sitting for an examination or undergone a period of training of varying durations. One has only to think of the Royal Colleges of UK, Ireland and Thailand. Then comes the Colleges of Physicians or Surgeons of neighbouring countries Bangladesh and Pakistan. There are too the Board Certificate holders of USA and the Organatura or 'Diploma equivalent' holders of Russia. Lastly was the fact that we had our own Diploma and Degrees which have been or are due to be conferred by the currently existing institutions in Nepal.

It is commendable that Nepal Academy of Medical Sciences (NAMS), a new entrant in this field of medical education has tried to solve the problem by allowing such Diploma or Organatura holders a place in the degree course, taking note of the fact that such doctors are specialists in their own right and so there is justification in allowing a reduction in the duration of the degree course from 3 years to 2 for them (2). Remembering that such an exemption is a one time affair offered over a 5 year period, this is truly to be appreciated. It may be noted that Kathmandu University (KU) has allowed special entry facilities but no reduction in the duration of the course for such candidates. Tribhuvan University (TU) on the other hand put into effect a more preferential formula by allowing only those doctors who are serving in TU into a MSc programme. The other Diploma holders, whom the university itself had produced were barred from such facilities and thus conveniently forgotten! This needs to be rethought by TU.

Last but not least it must be said that if PG degrees from Nepal are to become credible elsewhere in the world, then it must be of a uniform standard. This is essential if we are contemplating making Nepal into an Education Serve Centre and to get PG students from outside the country. There is much to be said for a common entrance and a common final assessment. Let all the concerned universities or deemed universities, with their affiliated colleges conduct their own courses and programmes but make sure that the final examination is held by an independent authority or board in which all the interested parties are represented.

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