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# A Tale of Two Countries: Managed Care

Managed care is a generic term describing any health care system that integrates the financing and delivery of medical care. Its growth in the United States has been driven by pressure to control costs, and there is circumstantial evidence that costs are slowing as a result of better management of resources. However, it is not clear how much of this is due to managed care, the selection of more favourable enrollees to health plans or other factors. Research evidence is limited, and that which is available is constrained by the rapidly changing nature of managed care. In the United States, a bewildering variety of managed care arrangemcnts have emerged, and several common characteristics can be identified: limited choice of physician providers; controlled access to secondary care; selective contracting; financial incentives; quality management; and utilization management (ref 1 ).

Miller and Luft analyzed evidence on managed care plan (mostly health maintenance organization, or HMO) performance from thirty-seven recently published peer-reviewed studies. Quality-of-care evidence from fifteen studies showed an equal number of significantly better and worse HMO results, compared with non-HMO plans. However, in several instances, Medicare HMO enrollees with chronic conditions showed worse quality of care. Evidence on comparing hospital and physician resource use showed no clear pattern, whereas evidence on enrollee satisfaction varied by measure and enrollee type. Although recent research provides useful findings, interpreting and generalizing from these relatively few studies is difficult. Fears that HMOs uniformly lead to worse quality of care are not supported by the evidence, although all quality data were collected prior to the recent round of cost cutting that started in 1992. Hopes that HMOs would improve overall quality also are not supported, in part because of slow clinical practice change, lack of risk adjusted capitation rates, and inadequate quality measurement and reporting (ref 2).

In Singapore, the idea of managed health care is being tested as a health care financing mechanism. The NTUC Managed Healthcare Scheme was launched in 1994. One of the lessons learnt is that a premium of some SGD$350 per head is necessary to run a scheme that provides primary, secondary and tertiary care. There is a steep learning curve for everybody to understand and respond positively to the managed care idea. Doctors think of only the monthly capitation of those patients seen and forget that for those not seen, a monthly capitation is also paid. Patients thereby react to doctors who regard them as poor cousins to the fee-for-service patients. Things, however, are beginning to be clearer.

Managed care Singaporean style has taken steps to resolve two main problems in the American HMO model namely, the issue of chronic medical conditions and the issue of more sick or more frequently attending patients. The initial plan in 1994 was to pay additional capitation for chronic conditions based on a computed average of the costs needed to provide care for a spectrum of patients suffering from a given chronic medical condition. This did not work very well because the average could not satisfy those doctors servicing the patients who are at thc more severe end of the spectrum.

In 1998, at the review policy meeting of NTUC MHS organised for doctors on the scheme, it was announced that for chronic medical conditions, the medicines will be paid on a fee-for-service basis and the doctor will be paid a consultation fee of SGD 20 for six visits as additional capitation for the chronic medical condition.

To deal with the more severely sick patients, a bottom line per visit cost of SGD27 will be used to see if doctors' per visit cost, on average, is below this number. If it is, then the difference between this figure and the doctors' computed figures will be the shortfall per visit cost below the bottom line. NTUC will reimburse 50% of the shortfall. Thus, if the per visit average cost is SGD 25. The difference from SGD 27 is SGD 2. Fifty percent of that is SGD 1. This amount multiplied by all his patients will be given to the doctor to top up his earnings. To what extent the Singapore doctors will feel more compensated and therefore more motivated to serve the managed care patient well in NTUC MHS is left to be seen.

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# Medicine As A Business - The Family Physician's Perspective

At the main entrance into the premises of the College of Family Physicians, Singapore in the College of Medicine Building, there is an inscription on a brass plate which reads:

" The Practice of Medicine
Is an Art, not a Trade;
A Calling, not a Business.
A Calling in which your Heart
Will be exercised equally with your Head"
- Sir William Osler

This quotation by Sir William Osler, the great physician, teacher and medical philosopher who graced the halls of Harvard, John Hopkins and Oxford, mentions the practice of medicine as an 'art' and a 'calling'. In this quotation which the College of Family Physicians feels embodies the true spirit of the family doctor, the term 'calling' best describes the devotion and love that the family physician has for his profession and work as a doctor in the community. This 'calling' to be adequately fulfilled and effective, however, must be accompanied by two very important components- namely the 'art' of medicine and the 'science' of medicine.

The 'art' of medicine would include everything that is usually labelled as the 'soft' side of the practice or the affective skills of the doctor. These would include the ability to empathise with the patient, to exhibit all the needed affective skills and behaviour to comfort and reassure the suffering patient, the moral fibre needed to ensure that the patient is cared for to the best of the doctor's ability and not exploit the patient's vulnerability, and give full regard and compliance to the ethics of good practice. All in all, these equate to the professionalism of the doctor.

The 'science' of medicine, as the other important component, is often regarded as the 'hard' side of the practice of medicine. This would include quite clearly the 'core knowledge' of medicine based purely on sound and well tested scientific knowledge and evidence-based medicine. But unlike the early days of the village doctor on his horse-drawn buggy, the family physician of today needs the 'other science' to help him manage his practice efficiently. This is the Science of Business Management. The proper tools of business and management must go together with the other component of core knowledge to ensure that the medical practice becomes financially viable. In short, both medical professionalism and the sciences of medicine and business management must go hand in hand if the family physician's practice is to do well.

In sound business or in our case in the well managed medical practice, various sound business management principles and practices must be in place. Proper accounting procedures with appropriate financial forecasting, money management and investment planning as well as cash-flow studies would be essential to ensure financial viability and adequate liquidity for the practice to run. The use of proper stock-handling procedures and store practices as well as sound inventory control measures would help to keep wastages down and avoid unnecessary tie-up of finances. In the field of human resource management of the nurses and support staff, adequate knowledge of good staff recruitment, motivation, delegation of authority and duties, performance appraisals, reward and incentives all become very important in the modern day medical practice.

From the above discussions, it can be deduced that the modern practicing doctor, specialist or family physician, must exhibit both professionalism and business know-how to be successful. To have one without the other would prove to be disastrous for the patient or the practice. It must also be stressed here that in terms of priority, the 'professionalism' in medicine must come before the 'business' in medicine. As such it stands to reason that medical practices should always be owned and managed primarily by doctors as professionals first, then as businessmen.

Some of you may have heard of the 3 roles or 3-Ss of the medical practitioner, namely Saint, Scientist and Shopkeeper. In his role as the saint, the doctor embodies the spirit of human kindness, empathy, care and concern for his patient and places the welfare of his patient as his most sacred task. As the scientist, the doctor would endeavour to base his healing art on scientific medical truths and well tested and evaluated treatment modalities. He would also ensure that his knowledge and treatment regimes keep up with the latest in medical research and development through continuing medical education ( CME ). As a shopkeeper, the doctor has to ensure that his practice is well managed and uses the modern tools of management as described earlier. In these multi-faceted roles, it is quite clear that the doctor would need to be: a dedicated saint a committed scientist and an efficient shop-keeper. The doctor then utilises his efficient shop-keeping to give him the time and opportunity to commit to further his knowledge of medicine (continuing medical education - CME) to enable him to serve and manage his patients better.

In his roles as saint, scientist and shop-keeper the family doctor must always identify himself with his 'calling' and the Hippocratic Oath or Physician's Pledge that he took when obtaining his licence to practice. In a world that is increasingly materialistic and impersonal where catch-words like profitability, productivity, and entrepreneurship have become the 'hype', it is not surprising that the doctor's focus on his roles can be distorted and wrongly directed. The recent trends to over-commercialise medicine and the move towards regarding medical practice as purely another service industry is thus regretable and unfortunate and should not be encouraged. The appearance of the third-party pure investor coming between the doctor and his patient would threaten the very core value of the practice of medicine - i.e. the sainthood. In cases where non-doctors become the key players, owners or majority shareholders of medical establishments, then the professional aspect is most likely to give way to business consideration and the medical practice degenerates to a trade or mere commercial concern. In other words, the efficient shopkeeper must not be allowed to change the paradigm of medicine by making business and not the patient the primary concern of the doctor.

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# Observations on the MMed (Family Medicine) Examination Singapore and recent changes in the MRCGP

**Murray T S**

The M.Med (Family Medicine) Examination consists of three written papers, an oral examination and a clinical examination. The written papers cover three contrasting areas. Paper 1 lasts three hours and consists of four questions which all require to be answered. Two are long essay questions, one is a short answer question and the remaining question is a modified essay question. This paper tests the organisation of knowledge, written communication skills, clinical knowledge and problem solving.

Paper 2 is a multiple choice paper which tests knowledge and it lasts for three hours, paper 3 lasts for one hour and consists of 30 slides or other visual presentation each of which are shown for 2 minutes and during this time a three part question related to the slide has to be answered.

The clinical examination consists of two long cases, one in adult medicine and the other in paediatric medicine. Each case is allotted 45 minutes which includes 20 minutes of discussion with the examiners. The candidate must demonstrate that he is aware of the importance of personal, occupational, family and environmental factors in the patient's illness. The examiners observe the history taking, the empathy and the psycho-motor skills in the physical examination.

Each candidate also undertakes four short cases covering the topics of medicine, paediatrics, surgery/orthopaedics and obstetrics and gynaecology. The time allotted is 15 minutes per case and this examines the psycho-motor and diagnostic skills of the candidate. The allotted time includes both the physical examination and the discussion with the examiners. The candidates tend to be given short one line histories for each patient. In all of the clinical examinations examiners are paired, one from family practice and a second from the appropriate hospital specialty.

The oral examination is based on the candidate's practice log, involves a pair of family practitioners with the practice profile component taking 10 minutes and the case commentaries 20 minutes. The questioning follows set guidelines but can be wide ranging. There is a set pass mark in each component of the examination but the candidate has to pass at least 5 out of the 6 clinical cases. This description just given demonstrates the wide ranging nature of the exam and reflects the work of the family doctor. The standard expected is considerable and the candidates who are successful have achieved at a significant level. The examination covers a wide range of activities and a candidate has to keep up a significant level of performance over several days.

The examination in September/October was my second time at External Examiner and I was impressed by the progress which has been made in three years since my last visit, particularly the efforts which have been made to standardise the examination process. The following are personal observations and will be of some help to both the candidates and the examiners.

Prior to the examination I received details of the various parts of the exam with the examiner's guide. This was sent at appropriate times and allowed comment. I was also sent the practice profile and six case commentaries from 7 of the candidates. These were considerable pieces of work and all were of a very high quality. They reflected the practices that the candidates worked in and also gave very meaningful case commentaries about a variety of conditions which they had managed. This was a part of the examination where I observed considerable progress and local experience regarding advice and clarity of thought were very apparent in the final product.

I noted in the orals that the able candidates, when challenged regarding their knowledge of the literature, were found to be lacking and it did seem to me that the critical appraisal of the medical literature appropriate to family practice needed to have a higher priority within the syllabus. This could be a task for the College to undertake. Another very happy trend was a three-fold increase in the number of candidates sitting. However, at the current level this does present considerable logistic problems regarding the continuing growth in numbers sitting particularly for the clinical. There was much more agreement

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between the specialists and the family doctors in their assessments than previously and the specialists seemed much more aware of the problems which the family doctors face. The scoring between the family medicine examiner and the specialist did not differ greatly on the consultations which I observed. I did note some variation in the difficulty of some of the clinical material and the clinical examinations seem to be the part of the exam which produces failure. This failure related to the recognition and demonstration of physical signs in addition to the management of patients. A joint College venture with the appropriate specialty College in clinical skills teaching may be a way forward.

The dedication of a small group of family doctors in making the exam happen was apparent. There are a number of stalwarts who clearly have been involved in the development of the exam but another pleasing feature was the involvement of a number of young examiners on whom the future direction of the College rests. Observing the calibre of the successful candidates bodes well for the future of the College and success in the exam is a considerable personal achievement with a future contribution to the development of the College an aim for all new members.

### MRCGP Examination

The exam moves to a new format in May 1998. I will describe the current format and the changes being made at that time. Currently, the exam is in two parts, a written paper and those who achieve a certain standard are invited for an oral. Pre-certification is required of competence in cardiopulmonary resuscitation and child health surveillance. There is also a video component whereby candidates submit a tape of their actual consulting and an assessment is carried out of their consulting skills.

The written papers are a multiple choice paper which is both multiple choice questions and extended matching questions. There is a modified essay paper and a critical reading paper. The first oral is based on the practice experience questionnaire and is devoted to aspects of practice organisation and a discussion of the candidate's own patients. The second oral: the candidate is presented with various clinical problems and topics from general practice, each of these orals last 30 minutes. Overall, about 85% of candidates are invited for orals and the pass mark is around 78% which is similar to the Singapore examination in the last sitting. From May 1998 the MRCGP will move to a modular structure and you must pass all four modules to pass the exam overall. The modules may be taken at the same session or at different sessions in any order, and you do not have to have passed the written papers before taking the orals. The maximum number of attempts at each module will be three and all modules must be passed within three years of being accepted for the examination. Module 1 will consist of four question types:

1. Questions designed to test the knowledge and interpretation of general practice literature.
2. Questions which test the candidate's ability to evaluate and interpret written material which is presented to them.
3. Questions which examine the candidate's ability to integrate and apply theoretical knowledge and professional values within the setting of Primary Health Care in the United Kingdom.
4. Questions which test the changing face of Primary Care.

Module 2 is designed to test the extent of the candidate's knowledge and information about general practice including both established and recent knowledge. This will involve extended matching questions, multiple choice questions and questions based on the evidence from journals. Module 3 will be the oral examination, two of which will each last 20 minutes. The orals will concentrate on examining the candidate's professional decision making and the values underpinning it in the context of the care of patients, working with colleagues, society and the doctor's personal responsibility. In each module it will be possible to pass with merit and if a candidate has two merits overall he will be awarded the MRCGP with merit and if he gains three or four merits this will be a pass with distinction.

The 4th and final module is an assessment of consulting skills. The candidate will prepare a video tape of his consultations and this will be accompanied by a detailed log. This will be marked by the examiners based on discovering the reasons for a patient's attendance, defining the clinical problems, explaining the problems to the patients, addressing the patient's problem and making effective use of the consultation.

The changes described are marked but it is felt that the changes will encourage both established doctors and G.P. registrars in planning their educational programme.

# Hepatitis B Vaccination - Important Issues and Future Directions

**Tan CK**

**Summary**

This is the summary of a talk delivered at the 5th Hepatology Update organised by the Department of Gastroenterology, Singapore General Hospital, on 2 November 1997. The important issues in hepatitis B vaccination are discussed, in particular the practical office management of a patient seeking vaccination. There is also a peek into the exciting future directions of hepatitis B vaccination.

Keywords: hepatitis B, vaccination, immunisation

Hepatitis B vaccination is a proven and efficacious method of controlling the disease. This is especially relevant in Singapore where the disease is endemic and is a major aetiological factor in our patients with hepatocellular carcinoma.

Yeast-derived DNA recombinant hepatitis B vaccines are commercially available since 1986. They have been shown to be safe and effective. The two such vaccines available here are H-B-Vax II® by MSD and Engerix-B® by SKB. They are both equally efficacious for clinical purposes and differ mainly in their recommended dosing quantities.

Only non-immune, non-infected individuals should be immunised against hepatitis B, viz. individuals who are both HBsAg and anti-HBs antibody negative. Thus persons seeking vaccination against hepatitis B should first be screened with these two serological tests to determine their eligibility.

Before embarking on the course of vaccination, a quick history should be taken to anticipate if the individual would be a poor responder to the vaccination (Table 1). Non-responders are defined as individuals with an anti-HBs antibody titre below the protective level of 10mlU/ml measured 1 month after the last dose of a complete course of vaccination. Hypo-responders are those with an antibody titre of between 10-100mIU/ml.

Table I -Hypo- and Non-responders to Hepatitis B Vaccination

Host factors:
- age
  response rate < 40yr: > 90%
  40-59yr: ~ 90%
  > 60yr: 85%
- haemodialysis
  - response rate of only 60-70%
- defective immune function
- tobacco smoking
- genetic
  - recessive HLA-related

Non-host factors:
- subcutaneous injection
- gluteal injection
- freezing of vaccine

The pre-vaccination interview must also exclude a history of yeast allergy. This is an absolute contraindication to the yeast-derived DNA recombinant vaccines. If it is important to vaccinate the individual, then the older serum-derived vaccines should be used.

The next crucial issue is that the vaccination must be given intramuscularly. The site in infants less than 1 year old is the anterolateral thigh. For all others, it should be given in the deltoid region of the arm. Wrong route of vaccine administration is an important cause of poor response, as is the wrong method of storing the vaccine eg. by freezing (Table 1). Subcutaneous administration is allowed for individuals at risk of haemorrhage from intra-muscular injections, but a lower response rate is to be anticipated.

There are two recommended schedules of vaccination - the usual at 0, 1 and 6 months and an accelerated regime at 0, 1, 2 and 12 months. The latter is recommended by Engerix-B® for individuals who need rapid active immunity

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against hepatitis B, eg. after a needle-stick injury. The important point about hepatitis B immunisation schedule is that there must be at least 3 doses and the interval between the second and last doses should be more than 2 months to ensure optimal response. This should be the guiding principle when resuming an individual who has disrupted his immunisation schedule.

It is prudent to check response to vaccination by measuring the anti-HBs antibody titre 1-2 months after the last dose of a complete immunisation schedule. Levels should be > 100mIU/ml, otherwise it is considered a sub-optimal response.

What should we do with such sub-optimal responders? The list in Table 1 should be reviewed to see if there is an obvious explanation. If there is no apparent reason, then blood for anti-HBc IgG antibody should be assayed. This is a permanent "scar" marker of hepatitis B infection. Some individuals may seemingly be HBsAg negative when they are actually positive at sub-laboratory assay levels. In these cases, anti-HBc IgG is useful as a surrogate marker for previous hepatitis B infection. Such individuals will not respond to hepatitis B vaccination.

If age, depressed immune function or a non-host factor is the culprit for the sub-optimal antibody response, then another administration of the vaccine at the usual dose may be given and the response checked. Newer vaccine formulations are in the pipeline that will address the problem of sub-optimal responders.

The durability of the post-immunisation response, as defined by anti-HBs antibody levels, depends largely on the initial titre achieved immediately after immunisation. A typical post-immunisation antibody response titre of about 1,000 mIU/ml usually takes about 5-7 years to decline to a supposed non-protective level of < 10 mIU/ml.

The need for booster doses when the titre falls to non-protective levels is debatable. As acute hepatitis B infection has a long incubation period of at least about 6 weeks, there is ample time for an individual who has previously responded adequately to hepatitis B immunisation to mount an anamnestic response, even if his hitherto unchallenged anti-HBs antibody titre has fallen to < 10 mIU/ml. This anamnestic response is attributed to memory B cells that persist indefinitely after a successful course of immunisation, even long after antibody levels have fallen to below non-protective levels. In the light of this, the routine administration of booster doses should not be the norm. Nevertheless, it would be prudent to administer a booster dose to individuals who have a definite exposure to hepatitis B if their antibody level is < 10 mIU/ml.

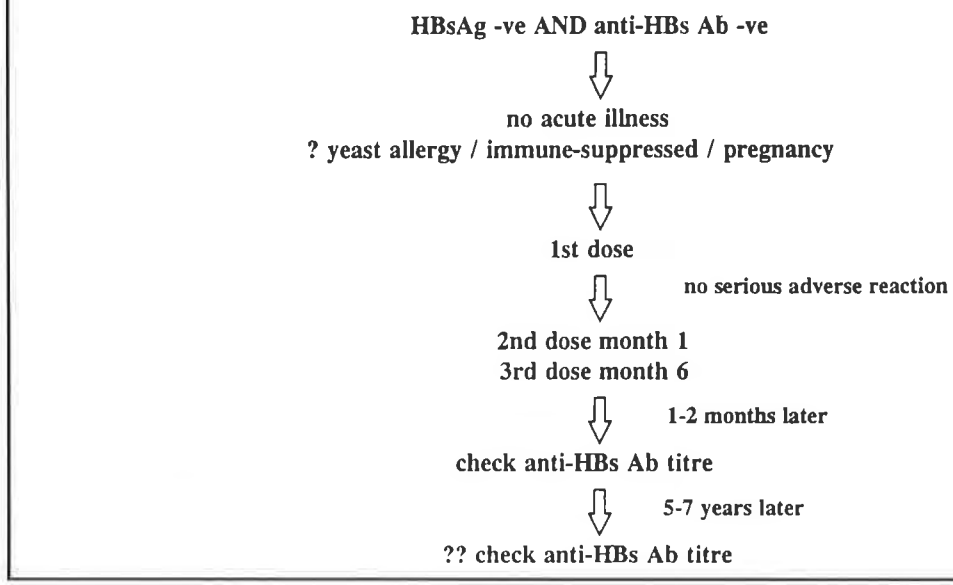
Newer hepatitis B vaccines with enhanced immunogenecity and more convenient routes of administration are under development (Table 2). Vaccines incorporating the highly immunogenic pre-S1 and pre-S2 epitopic regions of the HBsAg genome are especially important. Clinical trials have touted them to be confer almost 100% seroconversion rates, even in individuals who did not respond to the usual DNA recombinant vaccines.

Table 2 - Hepatitis B Vaccines of the Future

- incorporating pre-S epitopes
- polyclonal anti-idiotypic preparation exhibiting serologic mimicry of HBsAg
- insertion of HBsAg gene into live virus vectors eg *Vaccinia*
- expression of HBcAg-pre-S2 fusion protein in attenuated *Salmonella* strains for oral immunisation
- recombinant HBsAg protein incorporated into bananas

Perhaps what is most thrilling is the concept of banana vaccines. Preliminary work is well underway to transform bananas into safe transgenic expressors of recombinant HBsAg protein. This will be a definite boom to the world-wide control of hepatitis B as bananas are cheap and freely available in all remote developing regions of the world. Together with the advantage of being readily eaten by babies and that they can be consumed raw, this may be the means to effective world-wide immunisation against hepatitis B. The day may come when our clinics will have bunches of bananas hanging for sale as vaccination against hepatitis B!

**Figure 1 - Flowchart for Hepatitis B Vaccination**




## What really is the INR?

Some of us may have received referals to follow-up patients on anti-coagulant therapy. Monitoring of the level of anticoagulation is based on the INR or International Normalised Ratio. What really is the INR?

In the past the prothrombin (PT) ratio is used but it has been found that PT ratios differ because of the lack of uniformity and standardization of thromboplastin reagents. The sensitivities of these commercially available reagents can be measured by the International Sensitivity Index (ISI). The PT ratio corrected by the ISI is designated the International Normalised Ratio (INR)

*Outpatient Oral Antcoagulant Therapy in: Primary Care Medicine by Goroll, May and Mulley 3rd edition.*

Editor

## More on INR

*A/Prof Goh Lee Gan has written a very useful article on Oral Anticoagulants in practice in Asian Medical News Sep 1997. Here are some excerpts.*

The therapeutic range for INR is between 2.0 to 3.0 for low intensity therapy eg Atrial fibrillation and *2.5* to 3.5 for those with mechanical prosthetic valves. Occasionally a patient will have a very high INR. If the INR is $<6$ and there is no active bleeding, warfarin should be withdrawn for a few days. When the warfarin has dropped within therapeutic range, warfarin is restarted at a smaller dose. If the INR is $>6$, there is a high risk of bleeding and *0.5mg* Vit K should slowly be given intravenously. This will bring down the INR to therapeutic range within 24 hours. In patients with extremely high INR($>20$), higher doses of Vit K of 5-10 mg will be necessary and reversal of anticoagulation can be achieved within 6 hours. If the patient is actively bleeding, immediate reversal of anticoagulation is necessary using FFP, prothrombinex HT and Vitamin K given in a hospital environment.

Editor

# Facial Chemical Peels

**Lim JTE**

## Facial Chemical Peels

Facial chemical peels are becoming increasingly popular with patients, who seek such treatments from medical and non medical personnels. These peels are sought after for their cosmetic value in improving overall skin appearance. Physicians are using such peels for facial rejuvenation as well as to treat some dermatological conditions.

There are three groups of chemical peels depending on the depth of wounding of the skin viz superficial, medium depth and deep peels.

**Superficial chemical peels**[1,2] are peel procedures where a single chemical peeling agent is applied to the skin to wound the epidermis and part of the papillary dermis. Agents include glycolic acid, lactic acid[13], resorcinol[3], salicyclic acid, Jessner's solution, trichloroacetic acid and solid carbon dioxide. These peels are popular because of their relative lower risk and minimal post peel recovery time.

**Medium depth chemical peels**[1,2] are procedures where one or more chemical agents are applied to the skin to wound the whole epidermis and part of the upper reticular dermis. This depth of wounding can be achieved by using a higher concentration of trichloroacetic acid (50%) or by using a superficial peeling agent (eg glycolic acid or Jessner's solution) before applying a lower concentration of trichloroacetic acid (35%)[4]. The latter combination is deemed to give the same result with less complications. Medium deep peels remove a deeper layer of skin and hence give a better cosmetic result. However, they carry a higher risk of scarring and complications. They are also associated with a higher incidence of post inflammatory hyperpigmentation in Asian skin and is therefore not for the novice.

**Deep peels**[2] are peels where phenol is applied, either occluced or unoccluded, to wound the skin to the level of the reticular dermis. After a deep peel erythema is intense and the skin may heal with permanent hypopigmentation. These peels are less popular now as there are other relatively safer treatments available (eg laser skin resurfacing) to achieve the same desired results. Because of the risk of hypopigmentation they are not used on Asian skin.

## Glycolic Acid (GA) Peels

Of all the facial chemical peels done on Asian skin, the glycolic acid peel is the most popular and the safest. This peel can serve as a starting point for those interested in performing chemical peels.

### Indications

Glycolic acid peels are useful in improving acne, epidermal pigmentary disorder, postinflammatory hyperpigmentation[6], melasma[7], fine facial lines and wrinkles[8], photoaging[9] and soft distensible acne scars. They are not useful for ice pick acne scars, dermal melasma or for removing skin growths. The patient's reasons for wanting peels may differ from the doctor's indications. Hence the doctor's indications and the patient's goals and expectations should be ascertained and discussed. Limitations of glycolic acid peels must also be made known.

### Prepeel preparation

Once the indications are accepted, the doctor should look for conditions in the patients that may interfere with healing of the skin after peels. This should include a history of herpes simplex, atopic dermatitis, smoking, alcohol intake or skin infection. Patients with collagen or autoimmune disease should be excluded from peels, including glycolic acid peels.

Patients should be told to avoid using exfoliating masks, scrubs or waxing one week prior to the peeling process. Male patients are advised to skip shaving on the day of the peel.

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The skin should be primed before a peel. The period varies from two to six weeks, the most common priming interval being 2 weeks. Skin is primed with a variety of creams including glycolic acid, tretinoin, kojic acid or hydroquinone. Use of glycolic acid home products prior to peeling help to induce a preliminary desquamation, allowing for a more uniform penetration of the peeling agent. Priming also allows the patient to get used to a home care regime. It also helps to identify patients with an unusual sensitivity to glycolic acid products. Priming with tretinoin reduces wound healing time and also allows for a more uniform penetration of the peeling agent. For patients with pigmentary irregularities, the skin is primed with hydroquinone or kojic acid. This will improve any hyperpigmentation prior to peeling and also reduces the risk of post inflammatory hyperpigmentation. A sunblock which filters off both UVA and UVB sunlight is also started during this period and continued after the peels.

Photographs consisting of a direct frontal view and three-quarters oblique views of each half of the face are taken at this time, for documentation and to monitor improvement.

## The Peel Procedure

The face is washed with a mild cleanser (eg cetaphil) and degreased using alcohol, acetone or a cleansing solution containing glycolic acid and alcohol. The peel solution is applied in a clockwise or anticlockwise direction. As glycolic acid peels are time dependent, the timer is started at the time of application of the acid. The acid solution is applied using a brush or cotton-tipped applicator or a 4 by 4 cm gauze. The endpoint is reached when a faint erythema is seen or when the desired time is achieved. If the patient is unable to tolerate the discomfort, the peel solution must be neutralised or washed off, even though the time set is not achieved.

## Postpeel care

Generally, minimal care is needed. An emollient cream is applied to the face for a couple of days. Once the skin peels and looks normal, the maintenance regime is restarted. If crusting or frosting appears after the peel, an antibiotic ointment (eg mupirocin) is applied to the face.

## Free acids or partially neutralised peels

Two groups of peeling agents are available. Free acid peels consist of solutions with a low pH (eg Neostrata, Therapeutic) while partially neutralised peels have a higher pH (eg MD Formulation Forte). There is no scientific evidence that creating necrosis (as seen in free peels) leads to a more favourable result of the peel. However, partially neutralised peels are known to cause less necrosis and hence less problems . They may need to be left on longer for the same desired result.

## Peeling frequency of chemical peels

There is no scientific study which determines the optimal peeling intervals. With a lower concentration peel (20%) there is little dermal necrosis and peels may be repeated at weekly or fortnightly intervals. However, at higher concentrations, dermal inflammation occurs [10,11] and it is better to wait longer between peels. There is also no evidence to suggest the optimal number of peels one should do. Generally, if improvements are seen, peels should be continued at regular intervals till no evidence of additional improvement with each peel is seen.

## Results of glycolic acid peels

Glycolic acid peels cause discohesion of keratinocytes at lower concentration and epidemolysis and dermal inflammation at higher concentration. It also stimulates cell growth and cellular protein synthesis at sites distant from the tissue necrosis and is independent of tissue necrosis[11]. This results in dermal hyperplasia, collagen deposition and glyco aminoglycans deposition. An increase in collagen thickness in the dermis is seen with 50% GA peel[19].

## Trichloroacetic (TCA) Peels

Unlike glycolic acid, TCA peels are not time dependent. Instead the depth of penetration is dependent on the concentration of the peel solution, the number of coats applied, the amount of pressure in applying the acid and the degreasing procedure. The most important factor is the concentration of the TCA solution. For someone starting out on TCA peels, it is safer to use a

concentration of less than 30% as this remains a superficial peel. A 30% solution is prepared by dissolving 30 g of TCA in water and making up the mixture to 100 ml.

### Indications

Conditions that can be treated with GA peels will also improve with TCA peels. At higher concentration, TCA causes a deeper depth of necrosis and hence is better for deeper wrinkles and scars. However, it has a higher risk of scarring.

### Peel procedure

The skin is primed and cleaned as for GA peels. The TCA solution is applied to the face in a similar manner. TCA coagulates protein in the skin resulting in a frost. The intensity of the frost is related to the depth of penetration of the TCA which correlates with the concentration of the TCA solution and the number of coats applied. Once frosting has occurred the process is irreversible. The face is washed and an antibiotic ointment applied. Occlusive dressings are not required and if used, will increase the risk of bacterial infection.

### Post peel care

After a TCA peel the skin will darken, dry and peel off. This process takes up to one week. During this period, the treated area is covered with either a bland ointment (eg vaseline) or with an antibiotic ointment (eg mupirocin) till the area re-epithelialized. Patients are advised to use a mild cleanser and to gently rinse this off. There is no need to wash off all remnants of previously applied ointment as there must not be any shearing forces during washing. The patient must not pick at the scabs, and must avoid excessive exercise and sun exposure.

### Peeling intervals

Like GA peels, there are no optimal peeling intervals. Generally, TCA peels can be repeated at 1-3 monthly intervals depending on the concentration of solution used and the effect of the previous peel.

## The Trichloroacetic Acid (TCA) Masque[12]

Unlike TCA peels where TCA solution is applied to the face, the TCA Masque is a new cream formulation in 11% and 18% TCA applied as a masque on the face. This has a more uniform penetration and is more predictable. It can also be used either by itself or combined with Jessner's solution.

### Jessner's Peel

This is a superficial peel using Jessener's solution which is a solution containing salicylic acid 14g, resorcinol 14g, lactic acid 14g, in ethanol made up to 100 ml. It causes superficial wounding of the skin with some exfoliation. It is a safe peel, and unlike the GA peel, it penetrates evenly and is difficult to overpeel.

### Indications

It is used for the same indications as for the GA peel. It is suitable for people who like to see exfoliation but are not prepared to have a long postpeel healing period. Jessner's peels are used for clearing acne, clearing pigmentary irregularities and as a first step in combination peels.

### Peel procedure

The skin is primed and cleansed in the same way as for a GA peel. The Jessner's solution is applied in a similar manner, on skin that has been degreased using alcohol or acetone. The first response is a faint erythema followed by a pseudofrost. This light powdery whitening is thought to be precipitation of acid on the skin and is easily wiped off. Increasing the number of coats increases the depth of the peel. A true frost is seen with 3 or 4 coats of Jessner's solution.

### Postpeel care

As for GA peel a mild cleanser is used and the skin is covered with a bland emollient (eg vaseline). The skin will exfoliate over the next few days, the appearance of which is often liken to a mild sunburn.

## Peeling intervals

This is similar to that for GA peels.

## Salicylic Acid (SA) Peels

Salicylic acid peels was initially used as non facial peels. However, they are used as a paste, are uncomfortable, and result in large treated areas wrapped for several hours. The skin becomes raw and has a longer healing period. Recently, salicylic acid is used as a facial peel and applied on as a solution. It has several advantages: there is little risk of overpeeling and the acid induces superficial anesthesia of the skin.

## Indications

It has activity against both inflammatory and comedonal acne. It is also useful in reducing hyperpigmentation, surface irregularities and roughness.

## Peel procedure

Prepeel cleansing is easy and the peel is easily rinsed off with water. The acid is applied on the face as in a GP peel. Peels can be repeated at 2 to 4 week intervals.

## Conclusion

Chemical peels are here to stay. Superficial peels are easy to perform, safe and effective. The family physician should start with glycolic acid peels first before graduating to Jessner's peels and TCA peels. Two newer modalities include TCA masque and facial salicylic acid peels. These are not available on a commercial basis in Singapore. When available they will be popular as they are easy to use and have a high safety profile.

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# Singapore Managed Health Care

**Teo W, Goh LG**

**Abstract**

Different managed health care systems have arisen in recent years in Singapore. Broadly, health care management systems can be grouped as Fee-For-Service, Agent System and HMO. There is a place for HMO Singapore style: the capitation to doctors should be adequate and the system should also allow for consideration of patients who are legitimate high users because of more serious or multiple medical conditions. The reduction in the variation of care, standardisation of fees, an open book, reduction in utilisation and the increase in productivity can be real containment in health care costs. Managed care with its transparent system augers well for a better future in healthcare management. To succeed, there must be trust and co-operation from all parties concerned.

**Introduction**

There are different managed health care systems that have arisen in recent years. Arrangements like the corporate fee-for-service system have been in Singapore from time immemorial. Broadly, health care management systems can be grouped as Fee-For-Service, Agent System and HMO.

**Corporate fee-for-service system**

The corporate fee-for-service system is a scheme managed by the company itself. It is a form of managed care. The company pays the physicians on a monthly basis for the services rendered to the employees. The company assumes the financial risk for the health care costs of its employees. The health care risks are not insured with an insurance company. It is the same as any individual going to the doctor and paying the fees charged. The only difference is that the company may negotiate with the physicians for a fixed consultation fee and a cap on the cost of other services.

In the event of specialist care or hospitalisation, the patient may have to pay first and seek reimbursement from the company later. Depending on the benefits given to the employees, the full or part of the health care expenses may be reimbursed to the employee.

**Agent System**

The agent system is similar with the above fee-for-service except that the managed care organisation (MCO) will assume part of the risk. The MCO may be part of a group medical practice or an administrative arm of a loose association of independent physicians coming together for the purpose of attending to a group of employees.

There are at least three MCOs that function in this way, namely, the ICS-Balestier Medical Group, the AIA-HMO Medical Group and the Managed Health Care Group (MHO). In all the schemes, the MCO bears the expenses for acute outpatient consultations from assigned physicians associated with the MCO. A premium per head is negotiated with the company for a basic level of health care services. The patient will have to pay for the excess beyond the agreed level of health care. Payment for the assigned physicians comes from the capitation collected. In other words, the MCO collects capitation fees but pays its assigned doctors, fee-for-service.

Specialist and hospital care for the patients may be undertaken by the MCOs in their associated specialist clinics or hospitals. The fees charged may reflect some downward adjustment for the patient being a member of a managed care pre-paid or insured group.

**HMO**

In the HMO system, the managed care organisation assumes the risk of looking after the health of the employees from primary to tertiary care. For the three levels of health care services the HMO charges the company a fixed annual premium according to the age and gender

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of each member. The premium is for the scope of services mentioned in the health insurance policy. One example in Singapore is the NTUC INCOME Managed Healthcare System (MHS).

The HMO system in NTUC Income has been modified to pay additional capitation for chronic medical conditions. To our knowledge, the Scheme is the only one that has this feature. The importance of this feature is that patients with chronic medical conditions will not be neglected.

**NTUC INCOME Managed Healthcare System (MHS)**

The NTUC INCOME MHS has the following features:

- Defined Scheme of Services
- Member pays a co-payment for each treatment
- Capitation per head for primary health care
- Extra capitation for chronic illnesses
- Fee-for-service for secondary and tertiary medical care
- A panel of medical advisors
- Feedback channel for members and providers,

As it was new in Singapore, the information reaching the physicians and the general public caused concern and generated diverse opinions. The general opinion is that managed care may have an impact on the health care provision in Singapore. As Singapore doctors and patients are so used to the fee-for-service system, this new concept encountered teething problems from some participating doctors, patients and employers.

The experience of the first 4 years of NTUC INCOME MHS is as follows:

(a) Doctors not understanding the system

The majority of doctors in private practice are used to the fee-for-service system. They see the monthly capitation to be smaller than the usual fee-for-service. Initially, they did not recognise that the capitation per head is paid regardless whether the patient visits the doctor or not.

Actually, the total monthly capitation paid over a period (say, 12 months) divided by the number of visits would give the cost per visit. This cost per visit paid out of MHS was found to be on average, better than the general average cost per visit received by most general practitioners.

(b) Patients requesting unnecessary services

Many companies have in the past not questioned the usage of health care services by their employees. Hence, in some companies, employees are used to asking for tonics which may not be medically necessary as well as asking for referrals to specialists. Such employees may, therefore, feel unhappy when these past practices are not allowed under MHS. NTUC MHS pays its doctors for a scope of defined services which are medically necessary to bring the employees back to health. If services beyond the insured scope are to be included, it will cost the company a higher premium.

(c) Patients demanding multiple doctors

Before the advent of MHS, companies allowed employees to see any physician and to seek reimbursement, albeit up to a certain amount. Being used to this practice, many patients want to have the liberty to consult any doctor they like. Under a managed scheme, doctors are assigned at the commencement of the scheme. This is to enable the payment of a capitation to the physician. It was resolved that at least 2 clinics will be allowed, one near to the employee's home and the other near the office or any two clinics of the members' choice. MHS uses a system of Primary Care Clinics (PCC) and Alternative Primary Care Clinics (APCC). The PCC collects the capitation and the APCC is remunerated on an agreed fee-for-service.

(d) Patients with multiple medical problems

Invariably, there will be patients with multiple problems. The physician may look at the capitation and compare the situation before him or her. A wrong conclusion can be made if the matter is not considered carefully. It would be unsatisfactory if the physician decides to treat one problem at a time and call for several visits to the clinic. A corrective action was the introduction of

additional capitation for such patients. However, the physician had to register each and every chronically ill patient with the MHS and also state the plan of management. This additional capitation compensated the physician for the extra care given to these chronically ill patients.

(e) Adequate Premium

The premium negotiated between the employer and the HMO should be sufficient to cover the cost per visit to the physician. This will ensure that the physician receives enough capitation to be able to provide quality services to the employees.

The average medical cost per employee by industry for the period 1991 to 1995 as reported by the Ministry of Labour is as follows in Singapore Dollars:

| Industry | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|---|---|---|---|---|
| Manufacturing | 283 | 311 | 347 | 390 | 406 |
| Construction | 289 | 269 | 291 | 315 | 334 |
| Commerce | 342 | 369 | 392 | 401 | 439 |
| Transport, Storage & Communication | 397 | 446 | 468 | 519 | 528 |
| Financial, Insurance, Real Estate & Business Services | 496 | 523 | 569 | 599 | 637 |
| Community, Social & Personal Services | 352 | 403 | 389 | 427 | 421 |
| Total | 335 | 365 | 393 | 428 | 448 |

On average, it would cost about S$450 to manage the medical care of one employee.

**What are the possible improvements for the Managed Healthcare System?**

With experience in managing the NTUC Managed Health Care scheme, we think that the following could be adopted to improve the scheme further.

(a) There are doctors who see patients incurring more expenses on medicines as well as those with a low number of members assigned to them. Though the overall per visit payment to the doctor in the scheme is about S$30-S$34, doctors with few patients or more sick patients may receive a per visit payment much less than the average S$30-S$34. There is a need to compensate such doctors. One way is a 50% top up of the difference between their calculated per visit cost and the average per visit cost of S$27 (made up of S$20 consultation, S$5 for medicines coming from the co-payment and S$2 for injections and in-house tests). Thus, if the doctor's calculated per visit payment for the patients seen is S$17, there is a short fall of S$10 (S$27 less S$17). The 50% top-up will provide another S$5 per visit for the total number of visits attended to during the given period. The average per visit payment is thus elevated to S$22.

(b) Presently, the scheme pays an additional capitation for chronic medical conditions. Notwithstanding this, there will be patients who need more medicines beyond that provided by the additional capitation. One solution is to modify the system to pay a fee-for-service for medicines in such cases. This will take care of the requirements of patients for the broad spectrum of illnesses from mild to severe.

(c) There is a need to make physicians understand the payment system better. It is important that they are conversant with the payment system. The current cost per visit is reasonable. Yet, many physicians are not aware of this. These doctors look at the monthly capitation as the payment for each of their patients seen. The fact is that, the ACTUAL amount they receive is much more as it comprises the monthly capitation for all the members and all the co-payments from those who visited them. This total amount divided by the number of visits will give the actual payment per visit.

(d) There is also the need for MHS patients to be accorded the same care and treatment as any other patient. This is important. As an example, the quantity of cough mixture and the course of antibiotics given must be adequate. Because NTUC MHS ensures that physicians are paid adequately, physicians must treat MHS patients the same way as their other patients. MHS members have expressed concern that they have not received the same care and treatment from their physicians. If physicians find it difficult to

subscribe to the concept of the same care and treatment of all patients, they should not participate in the scheme.

(e) The other need is to get the total co-operation and trust of all parties in MHS. This is crucial. A continuing feedback mechanism with the healthcare providers, members and NTUC INCOME is a major critical success factor.

**Where are the savings in using managed health care?**

Savings do not come from cutting corners. The cost containment to the company comes from mainly two areas, namely, the reduction in medical expenditure from providers which include the physicians, specialists and hospitals; and the reduction in usage of service by the employees which could be translated into lower medical leave days and fewer visits to the doctor.

***Savings in medical expenditure***

Savings in medical expenditure come from:
(a) narrowing the variation of services for a given condition with similar severity;
(b) standardisation of fees for a given procedure; and
(c) an open book system where treatment and hospitalisations can be scrutinised by all.

***Savings from lower usage by employees***

There are further savings by the company. By the patients going to a regular physician, there is continuity of care thus resulting in more timely intervention, fewer visits required and less duplication of tests. In addition, the focus on prevention will also result in fewer visits to the doctor.

***Increase in productivity***

The HR staff save time in preparing their annual health care budget and their search for a panel of doctors to look after their employees and the collation of the health utilisation expenses from various sources.

Furthermore, the saving in MC days is also an increase in productivity. It is estimated that the cost of one MC day is worth S$60 to the company for clerical staff. Take the example of a company with 1000 employees. If the saving is one MC day per employee per year, the company would have saved S$60,000 a year.

**Conclusion**

There is a place for MHS in Singapore provided doctors are not forced to take risks because of inadequate compensation. The total capitation and co-payments they receive should be at least that of the average cost per visit of S$27. The system should also allow for consideration of patients who are legitimate high users because of more serious or multiple medical conditions.

The reduction in the variation of care, standardisation of fees, an open book, reduction in utilisation and the increase in productivity can be real containment in health care costs.

Managed care with its transparent system augers well for a better future in healthcare management. For it to succeed, there must be trust and co-operation from all parties concerned.

THE
# COLLEGE MIRROR

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## FROM THE EDITOR'S DESK

The College Secretariat has undergone a facelift. It has been some eleven years since we moved into the College of Medicine Building. In that space of time, wear and tear has taken its toll. New wallpaper, carpet, a fresh coat of paint, new upholstery and carpentry work has made it brand new again. Do drop by when you are in the vicinity.

On the education front, we conducted the 2nd Annual Surgical Update for Family Practice in January 1998. A publication entitled "Compiled Lectures" containing the full write-ups of all the lectures was distributed to participants at the Update. If you missed the update itself, don't worry, we have despatched a copy of the write-up to you. We hope you will find the information useful. Keep a look-out for the next Update in January 1999.

From surgery to ultrasound, we move to ultrasound. A dedicated Joint Committee for The Graduate Diploma in Basic Ultrasonography (Obstetrics & Gynaecology) has been formed. This committee consists of representatives from the College, the Graduate School of Medical Studies, National University Hospital, KK Women's and Children's Hospital and Singapore General Hospital. This Committee is now drawing up the training programme. The Diploma Course is scheduled to begin in early 1999. We will keep you informed of the date for applications.

The College is also discussing with the Royal College of General Practitioners in the UK about a collaboration in a hands-on course in office orthopaedics and minor surgical techniques. The College has purchased the necessary 'body parts' made of synthetic tissue. These models are antomically correct, even down to the texture of the "tissues". They should be good training materials.

Do drop us a line if there is anything you wish to share with the College Council and the Family Physician Community. We look forward to hearing from you.

■YC

## *WHAT'S BEEN HAPPENING*

## 2nd Annual Surgical Update for Family Practice

Following the success of the 1st Annual Surgical Update for Family Practice in 1997, the 2nd Annual Surgical Update was held on 17-18 January 1998 at the Regent Hotel. The conference placed the spotlight on two very important and commonly encountered surgical problems in Family Medicine and general practice: surgical problems related to the breast and those related to the urological system.


*Dr Alfred Loh, President, giving the opening address.*

A Scientific Chairman was appointed for each topic respectively, ensuring that the coverage of the topics was concise, relevant and practical. Together with the team of leading local experts, a comprehensive programme that was offered was well received by the participants. There was a good turnout of some 140 registered participants.

To enhance the relevance of the lectures, a book entitled "Compiled Lectures" was published and distributed to all delegates at the conference and to all Family Physicians island wide, post-conference. This publication contained the full write-ups of each of the lectures, and will be the start of a series of "Compiled Lectures" to be published annually at each subsequent Surgical Update. This, we hope, will be a useful reference tool for our Family Physicians and other doctors alike in time to come.

The Surgical Update was sponsored by the Ministry of Health and by Pfizer Pte Ltd. We were honoured with the presence of Dr Lam Sian Lian, Director of Medical Service (Public Health), who graced the occasion as the Guest of Honour.


*Dr Lam Sian Lian,Guest of Honour.*

*Meeting the panel of experts.*

Special thanks goes to the Organising Committee, especially to Dr Hong Ga Sze and Dr Bina Kurup (Co-Chairpersons); Dr Richard Ng, Dr Wee Siew Bock, Dr Eric Teh, Dr London Ooi (Committee Members) and Ms Yvonne Chung (Conference Coordinator).

Our gratitude and appreciation are also extended to the Chairmen for each topic and to the Teaching Faculty,

Dr Chong Bee Kiang
Dr Foo Keong Tatt
Dr Karmen Wong
Dr Low Sze Chuan
Dr Ng Eng Hen
Dr Richard Ng
Dr Tan Eng Choon
Dr Wee Siew Bock
Sister N Saraswathi
Dr Chiristopher Cheng
Dr Hoe Ah Leong
Dr Lim Lean Huat
Dr Michael Wong
Dr Peter Lim
Dr Tan Peng Kok
Prof VT Joseph
Dr Wong Chow Yin

*Participants paying full attention.*

Any event would not be successful without the participation of the delegates. Thank you to all of you who attended the event and especially to those of you who took a few minutes to provide us with your valuable feedback, comments and suggestions. These, where possible and practicable, will be incorporated into the next Annual Surgical Update in January 1999. We hope to see you then ! (see Announcements section for further details).

■YC

## College Renovations

### Before.....

*The Secretariat office before the renovations*

It has been some 11 years since the College moved in to the College of Medicine Building in 1987. Having lost some of that sparkle through general wear and tear, it was decided to give the interior an overhaul and fresh make-over. The carpets, wall-paper and air conditioning units have been changed, some of the office furniture re-upholstered, and modifications to the office have been made to optimise the use of space. The new coat of paint throughout the premises and the new lights make the entire office look brighter and fresher-altogether, a very pleasant environment to work in.

■YC

### After.....

*After the renovations - bright and spacious*

*After the renovations - bright and spacious*

*College Conference Room with portraits of the Past Presidents*

## *COLLEGE GIFTS AND ACCESSORIES*

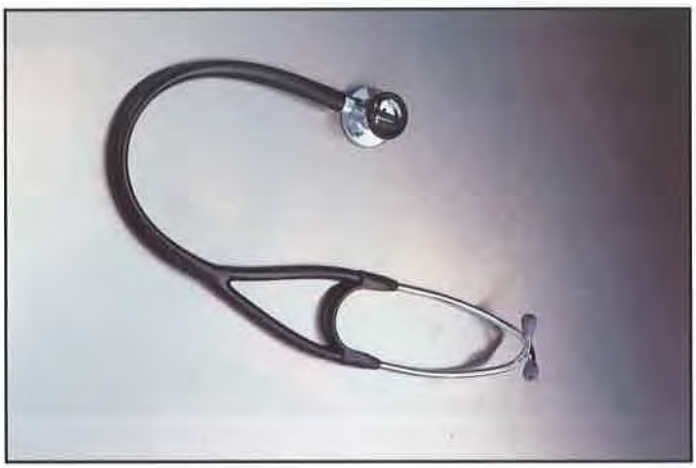
ESPECIALLY FOR YOU !

**Stereophonic Stethoscopes**

Open up to a whole new world of stereophonic auscultation.

These stereophonic stethoscopes were first launched in Singapore at the College's 6th Scientific Conference in May 1997 and are available at S$285.

The discrete two-channel design – it's left and right ear tubes are independently connected to right and left semi-circular microphones in the chest piece- allows the stethoscope to differentiate between the right and left ausculatory sounds. This is something not achieved by traditional monoaural stethoscopes.



*Stereophonic Stethoscope*

**College briefcases**

College Conference briefcases are available at a very affordable price of only S$25 each (similar ones are retailing at S$40 but without the embossed College logo of course).

**College Silk Ties and Scarves**

The College ties are all are made of 100% pure silk and come in 3 colours: claret red, dark green and navy blue at only S$25 each.

The 100% silk scarves are beautifully designed with multi-coloured orchids, the national flower of Singapore, at only S$30 each.

You are most welcome to come to the College and have a look at any of the above items. They make idea gifts to yourselves or friends and colleagues.

*College briefcases*

*College Silk Ties and Scarf*

## COLLEGE OF FAMILY PHYSICIANS SINGAPORE

APPLICATION FOR ORDINARY/ASSOCIATE/OVERSEAS* MEMBERSHIP

*(Please Print or Type)*

**** Delete where inappropriate***

**PERSONAL PARTICULARS**

Name in Full ..... Sex .....

Marital Status ..... No of children .....

Date of Birth ..... Nationality .....

NRIC No/Passport No .....

Name of Spouse ..... Occupation .....

Practice Address .....

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Telephone No ..... Fax ..... Pager .....

Home Address .....

.....

.....

Telephone No .....

**MEDICAL EDUCATION**

- Medical School .....

Year of graduation ..... Degree .....

Other qualifications and diplomas

(i) .....

(ii) .....

(iii) .....

**POSTGRADUTE EXPERIENCE AND TRAINING:**

| Position Held | Hospital Institution | Country City | From (Month/year) | To (Month/Year) |
|---|---|---|---|---|
| *Housemanship* | | | | |
| *Medical Officer* | | | | |
| *Other Appointments* | | | | |
| | | | | |
| | | | | |
| | | | | |

Are you now engaged in active family practice? Yes/No*

Family Practice -

| | |
|---|---|
| *Assistant/Trainee* | *Year* |
| *Partner* | *Year* |
| *Principal* | *Year* |

Published Papers

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**MEMBERSHIP OF ANY OTHER MEDICAL SOCIETIES**

(i) .....

(ii) .....

(iii) .....

## DECLARATION

I hereby make application for membership in the College of Family Physicians Singapore.

I will undertake and continue approved postgraduate studies while I remain in active family practice.

I am enclosing my fees for a 12 month period in the class of **Ordinary/Associate/Overseas** * membership and *S$50/- Entrance Fee (Entrance Fee is a one-time payment).*

I understand that the money will be refunded if my application is not approved.

In submitting this application, I hereby agree to abide by the regulations of the College of Family Physicians Singapore.

Date: ..... Signature of Applicant .....

*[Sponsors must be a Fellow, Diplomate or Ordinary members of the college]*

NAME OF PROPOSER : .....

Address .....

Signature of Proposer .....

NAME OF SECONDER : .....

Address .....

Signature of Seconder .....

*To be completed by Proposer*

The applicant, Dr _____ is personally known to me for _____ years, and to be the best of my knowledge he/she* is of good character and a person of integrity.

Signed ..... Date .....

Name of Doctor .....

Designation .....

Address .....

**Eligibility for**

**Ordinary Membership** - 7 years since graduation, 5 years in family practice. Subscription S$150 per financial year.

**Associate Membership** - Family Practitioner with less than 5 years in family practice. Subscription S$75 per financial year

**Overseas Membership** - A non resident of Singapore. Subscription S$50 per financial year

**Please note that those who are eligible for Ordinary Membership may not apply for Associate Membership.**

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**FOR OFFICIAL USE**

Recommended for *Ordinary/Associate Overseas** Membership

Date .....

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Applications should be sent to: THE HONORARY SECRETARY
COLLEGE OF FAMILY PHYSICIANS SINGAPORE
COLLEGE OF MEDICINE BUILDING
16 COLLEGE ROAD #O1-02, SINGAPORE 169854

## *WHAT'S COMING YOUR WAY . . .*

### GRADUATE DIPLOMA IN ULTRASOUND (OBSTETRICS & GYNAECOLOGY)

Many of our members have enquired when the course leading to a Graduate Diploma in Basic Ultrasonography (Obstetrics & Gynaecology) will start.

Much planning and thought has to be put into the design of the course syllabus to ensure that it is of the relevant and well structured to meet the needs of Family Physicians. The main objective of the course is to enable the participants to be proficient in basic ultrasonography in Obstetrics and Gynaecology. This will translate into better health care for the population at large; in turn they will enjoy a higher standard of medical management at the Family Medicine/Family Practice level.

As the course contains a large practical element, the College and Postgraduate School of Medical Studies, NUS, are arranging how best to hold these sessions with the O&G departments of National University Hospital, KK Women's and Children's Hospital and the Singapore General Hospital respectively.

A dedicated Ultrasound Committee has been appointed by the School of Postgraduate Medical Studies and the College to oversee all academic matters.

The Graduate Diploma is to be issued by the School of Postgraduate Medical Studies, National University of Singapore. The course is being approved by the Senate of the University. Members will be informed once this has been achieved.

### PROPOSED HANDS-ON MINOR SURGERY COURSE

**Visit of Dr Roger Kneebone**

The Singapore College firmly believes that there is a need amongst its members for continuing training in the skills of minor surgery. At present, there is no formal provision for minor surgery training for Family Physicians/General Practitioners and the College wishes to establish such a programme.

Further to the report in the last issue of the College Mirror, the Council has been communicating with the Royal College of General Practitioners in the UK to explore the possibility of conducting hands-on courses in Office Orthopaedics and minor surgical techniques for Family Physicians in Singapore.

On 5-10 February 1998, Dr Roger Kneebone, the chief trainer and principal coordinator of minor surgery courses at the UK College met with Council Members and the Teaching Faculty in General Surgery to discuss a proposed course that would suit the needs of our local doctors.

Bearing in mind the enormous pressure of time on our Family Physicians, the course would likely be run on two consecutive weekends and a further four half day sessions of minor surgery training.

Members will be kept informed of further details in due course.

### Welcome to New Members

*A warm welcome to ...*

**Dr Poh Siew Cheng**
**Dr Lim Ka Pheck**

Both doctors were accepted as Ordinary Members in January-March 1998

## College On Line

The College will be re-launching its web page at the end of 1998. One important feature would be CME on-line. Family Physicians work long hours and CME programmes often do not suit the time and need of the practising physician. We hope to launch a more structured programme which would cover the topics more comprehensively. As we know, many topics are neglected because of a lack of interest on the part of sponsors of CME programmes. On the other hand other topics are covered ad nauseum when new products are being launched. Lack of time is often a problem for doctors who work long hours. Many barely have enough of leisure and family time to maintain mental health. Enabling our members to participate in CME in the comfort of the home or the office may be one way the College can help our members to hone their skills without adding too much demand on their time. The entire programme would be on a 2 year cycle. Participants can join in the programme at any time in the modular system. Recognition awards would be given for those who complete the programme satisfactorily. CME points would most likely be awarded for those who complete one year of the programme. Also in the pipe-line is a forum page for family doctors to discuss issues in the practice of Family Medicine. Participants can share news, opinion, practice tips and ideas with other Family Physicians. We need interested members to contribute ideas and help in the running of this project. If you have any ideas or wish to help in any way, please call up our Secretariat.

Dr Lee Kheng Hock
Chairman
Research and Information Commitee

## Book Review

### Manual of Diagnostic Ultrasound

Edited by P.E.S. Palmer
Published by the World Health Organization in collaboration with the World Federation for Ultrasound in Medicine and Biology. *1995*

This book was donated to the College of Family Physicians Singapore, by Dr. Frank Tan, a Family Physician from Malaysia, when he visited us during the 6th Scientific Conference in 1997. He has extensive experience in the use of ultrasound as a diagnostic tool in general practice. He is also one of the authors of this book.

This is an excellent first book and probably sufficient to be the last book for Family Physicians who are interested in using the ultrasound as one of the diagnostic tools in their clinic. It is written with the general practitioner in mind and may be useful to those who are training to be specialists in diagnostic imaging.

The first few chapters of the book deals with the basics such as the physics of ultrasound and choosing an appropriate scanner. The last 18 chapters deal with different parts of the body from the abdominal aorta to the pleura. There are also chapters on neonatology, gynaecology and obstetrics.

Each chapter begins with topics covering indications, patient preparation, scanning technique, the normal organ and various pathological conditions seen with the ultrasound. Other topics include common pitfalls and differential diagnosis.

The book is written as a basic reference text. Referring to specific topics and pictures is quick and easy. It is so extensively illustrated with ultrasound pictures that it can practically be used as an atlas. Each ultrasound picture is presented as a pair. The first is a static picture as one would see on a screen. Beside it is a similar picture with an annotated diagram superimposed on the picture for comparison and study. It shows that much thought have gone into the planning of the book. This makes it very user-friendly.

Before one jumps in to buy a machine and a book and start a DIY ultrasound shop, one should be reminded of what was written in the preface of the book. This book is not meant to take the place of proper training. Ultrasound is very operator-dependent. The onus is for those with ultrasound machines to submit themselves to training. It quotes the WHO Technical Report Series No.723 which states that "The difficulties in making an accurate diagnosis from ultrasound images are such that the purchase of ultrasound equipment without making provisions for the training of an operator is contrary to good health care practice...." This brings us to the 3 basic principles of ensuring a high level of medicine in any country. Training, training and training. Putting up modern buildings and buying excellent machines are just means to an end and not an end in itself.

**Reviewed by Dr Lee Kheng Hock, Chairman, Research and Information Committee**

## *POINTS TO SHARE*

**A trip to Singapore's unspoilt spot**

"How long does it take to reach the lighthouse?" I quizzed S/N Seetoh. She had graciously arranged an overnight stay for the clinic staff at the Sultan Shoal Lighthouse, with the kind assistance of her husband Michael.

"It takes only 45 minutes if we row that sampan" came the reply as she pointed to one of the vessels at Jardine Steps. Of course S/N Seetoh was joking. The entire entourage reached the lighthouse within three quarters of an hour in two VPSA pilot boats despite the choppy sea and heavy showers.

Sultan Shoal Lighthouse was erected in 1985, sending out beacons every night to guide ships as they passed through the sea off South West Singapore. It occupies an islet no larger than a football field. We stayed in one of two bungalows equipped with all modern amenities.

With 19 pairs of hands, it was amazing how rapidly we unpacked. Soon, the karaoke enthusiasts stretched their vocal cords and others exercised their fingers at mahjong and carrom.

Our neighbours showed us a long fish that they caught earlier. This immediately prompted us to drop a few lines into the sea, only to be outwitted by the fishes. Those that we bought from the market for our barbecue were not too lucky. Wrapped in aluminium foil and cooked over the barbecue fire, they were devoured with vigour.

The fishes were not alone. The XO chicken cutlets were marinated to perfection, the sweet potatoes were exceptionally sweet and the potato salad certainly whipped up your appetite. It was a fine display of culinary skills by our Queenstown 'chefs', whom we pursued for their secret recipes.

Even the weather was kind. The rain cooled the scorching heat and gave way to glorious sunsets, which I captured on celluloid. Sitting under a swaying coconut palm amidst balmy breeze, listening to the soothing waves and watching the ships passing over the endless horizon was a truly relaxing experience.

The night passed rapidly as we drained our adrenalin over a game of "Heart Attack." We later chatted under a galaxy of stars over an almost cloudless sky well past midnight, before we retreated to slumberland.

The sunrise was equally enthralling. Basking in the warm light of dawn, Dr Ling completed her three rounds of morning walk around the island. We were contented just to feed the tiger striped fishes with bread crumps at the pier, pondering if ever our lives could be as leisurely as theirs...

Dr Tan Ngiap Chuan

## INVITATION

We invite your comments, suggestions or anything of interest that you would like to share with other members and Family Physicians. Please send your articles by fax at 2220204 or by email at rccfps@pacific.net.sg

Or simply mail it to:

The Editor
The College Mirror
College of Family Physicians Singapore
College of Medicine Building
16 College Road #01-02
Singapore 169854

## BOOKS FOR SALE

***"Caring for the Elderly - A Guide for Family Physicians"***

This is a most useful handbook for Family Physicians/GPs published by the Ministry of Health. It contains the up to date information on the provision of medical care for the elderly.

This book is authored by a number of distinguished doctors involved in caring for the elderly, and is available from the College at S$10 per book (self collection). Please add S$3.00 for despatch and domestic postage. Cheques should be made payable to "College of Family Physicians Singapore".

## Announcements

**Improving Obstetric Care in GP Practice**
**A problem-based learning workshop for the Family Physician**

Date : Saturday 23 January 1999
Time : 12.30 pm - 5.00 pm
Place : Postgraduate Medical Institude(PGMI)
Singapore General Hospital

Organised by O & G Department
Singapore General Hospital
RSVP & Contact : 326 6073 (PGMI)
Fax : 225 9785
Dr Douglas Ong : 92050223

***FIRST NATIONAL MEDICAL CONVENTION***

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**Dr Desmond P. J. Barton (UK)**

For further information regarding meeting, registration fees, accommodation:-
*Contact Conference Secretariat:*
**Attention: *Rosnani Libut***
First National Medical Convention
Ministry of Health, 3rd Floor
Mentri Besar Road,
Bander Seri Begawan BB3910, Brunei Darussalam.
**Tel No : 02 - 380 571 or 381 640 Ext. 7507 Fax No : 02-381 920**

## College of Family Physicians Singapore

CME 1999

**3rd Annual Surgical Update for Family Practice**
Venue: Le Meridien Singapore, 100 Orchard Road, Singapore 238840

**Saturday 23 Jan 99**
2pm - 6pm 2 CME points
**Update on Degenerative Disorders & Orthopaedics**
- Includes hands-on workshops on Injection Techniques for Common Orthopaedic Conditions

**Sunday 24 Jan 99**
10 am - 6pm 3 CME points
**Update on Upper GIT Surgery**
- Includes interactive programme

**Registration Fees** (Limited to 150 participants)

For College Members & previous attendees of 1st or 2nd Surgical Update in 1997 & 1998
- S$70 - 2 days
- S$40 - 1 day

For all other participants
- S$80 - 2 days
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**Limited free car parking available on 1st come 1st served basis on receipt of complete and paid registration.**
**Ring 223-0606 for an application form.**

**Expanded & interactive programme with hands-on workshops**

# About Calcium Channel Antagonists

Goh LG

## Uses and minor adverse effects

A large number of drugs within the three current classes of calcium antagonists are in common medical use for the treatment of hypertension and ischaemic heart disease. The reported adverse effect profile for each of these drugs varies, but tends to hold true to drug class and are typified by the adverse reactions reported for nifedipine and amlodipine (dihydropyridines), diltiazem (benzothiazepines) and verapamil (phenylalkylamines). Minor adverse effects such as flushing, headache, ankle oedema, palpitations and constipation are not uncommon and frequently require the cessation of treatment (ref 1).

## Short acting nifedipine is unsuitable

An overview of the large amount of data from properly randomised controlled clinical trials shows clear differences between the dihydropyridine class of calcium antagonists such as nifedipine, and the non-dihydropyridines verapamil and diltiazem. Most of the data with the dihydropyridine group derive from trials with short-acting formulations of nifedipine (TRENT, HINT, SPRINT-I and -II). Overall, none of these trials showed significant benefit in either AMI or post-MI prophylaxis. There was a trend for harm, with HINT stopped early because of excess reinfarction with nifedipine, compared with metoprolol. In contrast, and when taken together, the DAVIT-I and DAVIT-II studies with verapamil showed significant reductions in sudden death, reinfarction and total mortality. The greatest benefit occurred in those patients with relatively good left ventricular function. Similar but less significant trends were seen in studies with diltiazem. It is clear that calcium antagonists, unlike beta-blockers, cannot be treated as a similar class. It seems likely that the adverse effects of nifedipine are related to reflex sympathetic cardiac stimulation as a result of the predominantly vasodilator action of these dihydropyridine compounds. Data on newer dihydropyridines with fewer reflex effects are awaited. In the meantime it seems sensible to use proven agents such as beta-blockers or verapamil. These data on AMI and the months following have recently been paralleled by case control studies in hypertension, which similarly have suggested that harm from the use of predominantly short acting formulations of nifedipine compared with beta-blockers have led to a warning statement by the US National Heart, Lung, and Blood Institute on 1 September 1995 (ref 2).

The risk of using short-acting verapamil was no more than that of beta-blockade. These differences can be attributed, at least in part, to the low catecholamine profile of verapamil and the marked rapid adrenergic activation with short-acting nifedipine. This could also explain the adverse effects found when this agent is given to patients with acute coronary syndromes. During the chronic use of long-acting dihydropyridine (DHP) CCBs, most evidence suggests that there is little or no catecholamine activation, or in the case of amlodipine, even a decrease in plasma atecholamine levels. These differences may explain why the expected regression of left ventricular hypertrophy is obtained with long-acting but not short-acting DHPs. At present, the results of several large randomized controlled trials with long-acting CCBs are awaited. In the meantime, when the decision has been made to use a CCB, the preferential choice is to use a non-DHP for hypertension with clinical ischemia or postinfarct hypertension, to use a long-acting CCB for the control of left ventricular hypertrophy, and to use the DHP amlodipine when there is associated depression of myocardial function (ref 3).

## Nifedipine not for emergencies

Over the past two decades, nifedipine in the form of capsules has become widely popular in the treatment of hypertensive emergencies. Unlike other agents such as sodium nitroprusside, nicardipine hydrochloride, diazoxide, and nitroglycerin (which require intravenous administration and monitoring of blood pressure)

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nifedipine can be given orally, and close monitoring is said to be not necessary. Although administration of nifedipine capsules has been reported to be expedient and safe, it has not been approved by the Food and Drug Administration for labeling for treatment of hypertensive emergencies or for any other form of hypertension because of the lack of outcome data. A review of the literature revealed reports of serious adverse effects such as cerebrovascular ischemia, stroke, numerous instances of severe hypertension, acute myocardial infarction, conduction disturbances, fetal distress, and death. Sublingual absorption of nifedipine has been found to be poor; most of the drug is absorbed by the intestinal mucosa. Given the seriousness of the reported adverse events and the lack of any clinical documentation attesting to a benefit, the use of nifedipine capsules for hypertensive emergencies and pseudoemergencies should be abandoned (ref 4).

**Gingival enlargement**

Gingival enlargement, an abnormal growth of the periodontal tissue, is mainly associated with dental plaque-related inflammation and drug therapy. Its true incidence in the general population is unknown. Gingival enlargement produces aesthetic changes, pain, gingival bleeding and periodontal disorders. Although gingival overgrowth has been traditionally recognised as an adverse effect of phenytoin therapy, it has recently been reported in association with the use of cyclosporin and calcium antagonists. These three classes of drugs produce important changes in fibroblast function, which induce an increase in the extracellular matrix of the gingival connective tissue. In the majority of those patients for whom dosage reduction, or drug discontinuation or substitution is not possible, and for whom prophylactic measures have failed, surgical excision of gingival tissue remains the only treatment of choice (ref 5).

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# Trichotillomania in Children and Adolescents

**Fung D, Chen H**

## Introduction

Trichotillomania was first coined by a French dermatologist Hallopeau in 1889 to describe a young man who pulled out his hair in tufts. The word trichotillomania is derived from the Greek thrix which means hair; tillein, to pull; and mania, madness or frenzy. This term is somewhat of a misnomer as it implies a psychotic process. Currently, in the present classification systems; ICD-10 and DSM-IV, Trichotillomania is classified under impulse-control disorders and is defined as the "recurrent pulling of one's hair, resulting in noticeable hair-loss", and is associated with the following features:-

1 an increasing sense of tension immediately before pulling out of hair, or when attempting to resist the behaviour;
2 pleasure and gratification or relief when pulling out the hair;
3 the disturbance not better accounted for by another psychiatric condition or a general medical condition e.g. dermatological illness;
4 the disturbance causes clinically significant distress or impairment in social, occupational or other important areas of functioning.

Trichotillomania is an interesting but considerably rare condition in psychiatric settings. Some of the few studies done overseas report positive cases in less than 1% of the clinic samples of children[1,2,3]. However, the problem is probably under-reported because embarrassed sufferers or parents conceal their behaviour & do not seek treatment. Also, a large proportion of the cases actually goes to the dermatologists instead of seeking psychiatric management. Studies have shown that it is up to seven times more common in children compared with adults[4], and there are often significant underlying psychiatric and/or psychological issues.

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## Etiology

Whether Trichotillomania is itself a unique condition or a symptom of an underlying diagnosis has been debated, although the DSM-IV qualifies it as a separate disorder. When it occurs alone i.e. in the absence of coexisting psychiatric disorder, some authors consider it a form of obsessional compulsive disorder, supporting the rationale for use of anti-obsessional agents such as fluoxetine and clomipramine[5,6]. Others propose that trichotillomania is a symptom of an underlying disorder e.g. depression, and management would then constitute treatment of this disorder[7,8] .

In small children, hair pulling is usually benign, much like thumb-sucking and nail-biting, an illustration of increased body manipulation observed in this age-group[9], or that of a 'nervous habit' or tic[2]. However, pathological situations may arise. Trichotiilomania has been described as a means to work through object relations by use of hair as a transitional object[10,11,12]. Emotional deprivation in the maternal relationship has also been implicated in its development[2].

In familial studies, increased rates of affective disorders, obsessive compulsive disorder and Trichotillomania have been found clinically. In one systematic family study[13] a higher risk (11.9% age-corrected) of severe primary OCD was found in first-degree relatives than would be expected in the general population (2%).

## Features

The condition is said to be more common in females than in males[6,9,13,14]. Typically, hair is pulled out singly, less often in clumps, from the scalp. Other less common sites including eyebrows, eyelashes, pubic and axillary hair[2,13]. Whilst systemic illnesses or drugs cause hair loss that is more general, the clinical picture of Trichotillomania is that of partly linear or bizarrely shaped patchy hair loss. Cosmetically,

disfigurements varies from small bare spots that can be concealed easily, to obvious large patches. Typically, the periphery is spared whilst the contralateral region of right and left-handed individuals are affected. The fronto-parietal and the fronto-temporal regions are often involved as is the occipital region in younger children; with short broken strands of different length remaining in the affected region[14].

Associated features include nail-biting (onychophagy), thumb-sucking and hair-eating (trichophagy) resulting in abdominal pain and hairballs[5,14]. Other studies have shown that hairpulling is associated with tics and obsessive compulsive spectrum disorders. In our series, 1 had nail biting while 2 had a history of tics. What was interesting was that none of these behaviours occurred simultaneously with the hair pulling. Instead, each behaviour appeared chronologically.

**Differential Diagnosis**

Differential diagnoses include various forms of dermatological conditions; alopecia areata, alopecia totalis, traction alopecia, common baldness, discoid eczema, lupus erythematosus, lichen planopilaris, follicular mucinosis and tinea capitis[4,15,16]. In children, tinea capitis is the most frequent. Sometimes a scalp biopsy is required to make the diagnosis especially since the symptom is often denied by patients. In our series, only one case was seen by the dermatologist with no scalp biopsy done. Observation under the magnifying glass revealed hair broken at different levels with no observable scalp pathology.

**Treatment**

Treatment for Trichotillomania is typically described as difficult. Numerous modalities have been reported and include :

1. Behavioural therapy is the only modality that has been systematically studied e.g. habit reversal[17], covert desensitization[18], self-monitoring and relaxation[19], negative practice training and aversion therapy. Habit reversal appeared to be most effective. Habit reversal can be described in 3 Ds: Don't immediately give in to the hair pulling urge; Delay pulling for a period of time; Distract with an alternative activity.

2 Cognitive approaches address maladaptive behaviours with cognitive restructuring and alternative skills training[20,21]. This is done through a trained therapist.

3 Hypnotherapy has been successfully used in the treatment of hair-pulling[22,23] and it has been suggested that treatment should focus on the child's developmental struggles rather than the symptom of hair-pulling itself [24].

4 Psychodynamic psychotherapy - to address the defence to decrease anxiety through a 'narcissistic, autoerotic mechanism'[2] and to address the means to work through object relations in dealing with hair as a transitional object[10]. This, however, is often ineffective because of the ego-syntonicity of the symptom, and the presence of parental pathology[9].

5 Pharmacological treatment: to date, there has been few controlled studies in this area. In adults, clomipramine, a serotonin-specific tricyclic antidepressant with antiobsessional properties, was found superior to desipramine in females with long-standing trichotillomania[5]. Fluoxetine was reported in one case to be effective[25], but in a double-blind placebo controlled study in adults, no superior efficacy was found. Comparatively, in children and adolescents, data on pharmacological treatment of trichotillomania is sparse. One reported case illustrates the successful treatment with imipramine in a seven year-old girl with comorbid depression[8]. In cases where concomitant or underlying psychiatric disorders are present e.g. depression and obsessive-compulsive disorder, pharmacological treatment of these disorders with respective agents will likely result in improvement of hair-pulling as well[7,8]. However, underscoring these are potential side-effects and symptom-rebound following treatment discontinuation which merit caution[26].

**Illustrative Case Histories**

Three case histories are presented because of their differences and possible etiologies.

**Patient K**

K is a 10 year old boy whose parents referred him to the Child Guidance Clinic as he presented with a 6 month history of hair pulling. K is the eldest in a family of working executive parents. K's problems started when he failed in his attempt to get into the Gifted Education Programme. He was extremely disappointed. His parents were equally disappointed. K was described to go through a period of sadness and he started developing tics and eye blinking. When his parents stopped his sudden movements, he started pulling his hair. Initially, the bald patch was small and not noticeable. Gradually, it grew bigger and was soon too prominent to hide. K resorted to wearing a hat. K's mother frantically searched for means of helping K, printing out large parts of Internet sites talking about Trichotillomania. Despite constant warnings, cajoling and criticism, K could not stop his hair pulling. The following was a passage K wrote:

*Last year, after my end-of-year examinations, I started a bad habit of pulling hair. I didn't know why and how come I started this bad habit of mine, maybe it was because of pressure or grief. My parents continuously told me not to pull my hair. Every time I try to pull my hair, I try to control myself but I can't. How I wish I could stop and forget this habit. Five months passed and the hole grew bigger. I was continuously scolded by my parents as the hole grew bigger and bigger. I felt very glum, sad and angry since this habit started. People kept running away and teasing me that I am ugly. How I wish that I can stop this bad habit and let all my hair grow back so that I can look like my normal self.*

K responded to behaviour therapy and his parents were counselled regarding their high expectations. In 2 months, his hair had grown back.

**Patient W**

W is a 10 year old Chinese boy, the elder in a family of 2 siblings whose father is a technician and mother is a housewife. He was referred to the Child Guidance Clinic by his school for his tendency to jerk his neck and pulling his own hair. W started having involuntary jerking movements of his head and neck since the middle of 1995 and this progressed to hair pulling. W, who is generally quiet and reserved, described his hairpulling as uncontrollable and is usually done while he is studying at home. No hair pulling occurs in school. He only pulls the hair from his scalp and nowhere else. The hair pulling did not stop when his mother scolded him. The apparent stressor was W's primary 4 streaming examinations which were fast approaching. W expressed great difficulties coping with his school work. Although W was not developmentally delayed in his milestones, he was a slow learner since starting school. By the time he was in primary 4, he was failing in every subject. IQ testing showed that he was functioning in the low average range of intelligence. His reading and comprehension age was about 4 years behind his chronological age.

Management of W consisted of both individual counselling and behaviour therapy, both of which was unsuccessful because W's reticence and unwillingness to co-operate. After some discussion with the mother, W was placed on Fluvoxamine 50 mg at night for 4 months and he showed improvement. W's learning difficulties were communicated to the school and he also received reading and comprehension remediation from a social service agency.

**Patient X**

X is a 12 year old girl taking her PSLE examinations who is the only child in a single parent family. X's father died when she was 9 years old, in a tragic accident at his worksite where he was construction worker. This occurred shortly after X had started plucking her hair. Neither X nor her mother could identify the exact precipitating event for her hair pulling. However, the family did not seek help for the problem except through traditional means. The mother initially thought that X was not eating nutritious food which resulted in hair loss. X was untreated for 3 years until her prominent bald patch was noted by the nurse making a health visit to her school. X describes her hair pulling in a classical manner, it occurred at home when she was not doing anything, She would feel an urge to pull which was irresistible. She felt that the hair pulling was silly but could do little to prevent it. A referral to the dermatologist revealed no dermatological abnormality with hair broken off

at different levels. There was no evidence that there were unresolved grief issues. X responded very poorly to medication despite trials of Clomipramine, Fluvoxamine and Fluoxetine. X is presently being treated with behavioural therapy for the last 4 months with no significant improvement. She has completed and passed her primary school examinations and was promoted to secondary school express stream.

**Conclusions**

In our experience, treatment is individualised but it appears that behavioural therapy with environmental reduction of stressors was the most effective combination. Drugs did not appear to help unless anxiety or depression were prominent features. Some patients tend to default treatment once improvement was attained.

In summary, Trichotillomania is an intriguing problem in a medical setting. However, much basic information about its prevalence, course and treatment needs further study. Professionals dealing with children need to be made aware of the condition as much misery can be under recognised as was seen in several of the cases in our series. More systematic study of the condition needs to be carried out.

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# Stress in Children

**Cai Y**

Unlike adults, who can grumble and complain to release their stress, children do not. Most children are not able to recognize that they are distressed. So they send out "distress signals". These include bodily complaints and changes in their emotion and behaviour.

Children under stress are also more likely to show academic under-achievement and learning failure at school. Also, they may start showing regressive behaviour as a cry for help. For instance, a 10 year-old child may start behaving like a 4 year-old and ask his parents to bathe, spoon-feed and carry him around.

**What are the signs of stress ?**

Distressed children send out "distress signals" as reflected by the following changes:

**Emotional changes**
Fear and anxiety, school refusal, depression, suicidal ideas and attempts, anger and hostility, irritability and mood swings, loss of interest, inability to enjoy oneself.

**Behavioural changes**
Aggressive and violent, withdrawn and quiet, destructive and quarrelsome, hyperactive and inattentive, disruptive, truanting, shoplifting, lying and stealing, running away from home, hair-pulling, bizarre and irrational behaviour, obsessional and compulsive acts, sexual misdemeanor and deviation.

**Bodily complaints**
Headache, stomach-ache, blinking of eyelids, tics on face, neck or body, nausea and vomiting, sense of inability to breathe, palpitations, ringing in the ears, loss of appetite, frequency of micturition, cannot fall asleep or interrupted sleep.

**Mental complaints**
Blank mind, poor concentration, day-dreaming, forgetfulness, proneness to crying.

These psychosomatic symptoms often make parents worry if the child has a medical illness and they may send the child to see the family doctor. The role of stress in these symptoms need to be recognised.

**What are the myths of children in distress?**

Some parents, instead of recognising stress in their child, may label the child's behaviour as naughty, wicked, sinful, charmed or possessed by evil spirits, brain damaged, stupid, criminal tendency, or mad.

These misconceptions or misinterpretations of a child in distress can lead to wrong handling by the parents, delays in bringing the child for treatment, or self-fulfilling prophesy.

**What are the sources of stress in children?**

Everyday, stressors occur as part of life. This includes day to day events relating to school, traveling, family life and recreation and often involve relationships. It is not possible to list all the stresses of daily life but today's child is under constant pressure to make adjustments e.g. changes in weather (such as smoke, haze), bus breakdown, unexpected illness, failure in tests, friction with schoolmates.

**Within the family**
Marital disharmony, lack of care and control, harsh and punitive discipline, high and unrealistic parental expectation, disturbed parent-child relationship and interaction, mental illness and personality disorder in parents, sibling rivalry, death of parents and close relatives, child being hospitalised

**In the school**
Too much homework and projects, tests and examinations e.g. PSLE and O-levels, poor relationship with teachers, frequent change of teachers, poor discipline, high expectations from

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the school, learning and reading difficulties, entering primary one or secondary one.

**Peers**
Adverse peer influence in the neighbourhood, relationship conflicts with peers, intense competition and jealousy with classmates and schoolmates, rejection and non-acceptance by peer group, bullying and teasing.

**What is the critical age in the life of children?**

Seven is the critical age for Singaporean children when the stress in their young lives reaches a peak. A major cause of this is the switch from a relatively carefree kindergarten life of fun and games to a routine of homework, books and rules.

Children will also find their life stressful when they enter primary six, secondary one and secondary four. These involve either major transition or examination in the school.

**What is the difference between boys and girls in their response to stress?**

Boys tend to be reactive and disruptive. They are more likely to be picked up by their parents or teachers who will refer them to the clinic for help. As for girls, they become withdrawn and quiet and tend to day-dream. However they do not create a disturbance to others, therefore, parents may think that all is well when in fact, it is not. Their problems are, therefore, more likely to be missed by the adult caregivers and are also less likely to receive attention and help that they may need. Of all the new cases that come to the attention of our clinics, the ratio is about 2 boys to 1 girl.

**What are the characteristics of children prone to stress?**

How a child copes with stress depends on certain personality characteristics:

- Anxious and worrisome. These children are always on the lookout in case problems arise. They are constantly anxious and even when reassured, are not reassured. They will feel stressed all the time and have the urge to strive constantly to avoid failure.
- Sensitive and suspicious
- Timid and shy
- Rigid, inflexible and perfectionistic. These children constantly feel that they need to do well that they should reach the highest level of achievement, should do this task or that task themselves in order to have perfect results. In other words, this need for perfectionism is self imposed rather than put forth by their parents or teachers.
- Competitive and aggressive. These children are aggressive, restless and competitive with a strong sense of time urgency. Research has shown that such children tend to react poorly when situations become unbearably difficult or if they are overachieving.

**Stress-related disorders**

If the stress is overwhelming and prolonged, the following abnormal conditions may arise:

1. Acute stress reaction (acute stress)
2. Adjustment disorder (chronic stress)
3. Post-traumatic stress disorder (traumatic stress)

They are regarded as maladaptive responses to severe stress or continued stress in that they interfere with successful coping mechanisms and thus lead to problems in social functioning.

**Acute stress reaction**

This is a transient disorder of significant severity which develops in an individual in response to exceptional physical and / or mental stress. The stressor may be an overwhelming traumatic experience involving serious threat to the security or physical integrity of the individual or of a loved person(s) e.g. accident, criminal assault, rape or an unusually sudden and threatening change in the social position and / or network of the individual, such as multiple bereavement or domestic fire.

The symptoms show great variation but typically include an initial state of "daze", with some constriction of the field of consciousness and narrowing of attention, inability to comprehend stimuli, and disorientation. This state may be followed either by further withdrawal from the surrounding situation (to the extent of a dissociative stupor) or by agitation and over activity (flight reaction or fugue). Automatic signs of panic anxiety (tachycardia, sweating, flushing)

are commonly present. The symptoms usually appear within minutes of the impact of the stressful stimulus or event, and disappear within 2-3 days (often within hours). Partial or complete amnesia for the episode may be present.

**Case study - acute stress reaction**

Julia Teo, a 7 year-old girl, was involved in a car accident in which her father was badly injured. She was fearful and had nightmares of the accident in her dreams. She did not want to go to school. She appeared dazed and in a shocked state. After a few days she returned gradually to the normal self. She had no re-collection of the car accident.

**Adjustment disorders**

These are states of subjective distress or emotional disturbance, usually interfering with social functioning and performance and arising in the period of adaptation to a significant life change or to the consequences of a stressful life event e.g the presence or possibility of serious physical illness, bereavement, migration etc.

The manifestations vary,and include depressed mood, anxiety, worry, (or a mixture of these) a feeling of inability to cope, plan ahead, or continue in the present situation, and some degree of disability in the performance of daily routines. The individual may feel liable to dramatic behaviour or outbursts of violence as seen occasionally in adolescents. In children, regressive phenomena such as a return to bed wetting, babyish speech or thumb-sucking are frequently part of the symptom pattern. The onset is usually within 1 month of the occurrence of the stressful event or life change, and the duration of the symptoms does not usually exceed 6 months.

Individual vulnerability and coping capacity play a role in the occurrence and severity of acute stressful reactions and adjustment disorders, as evidenced by the fact that not all people exposed to exceptional stress develop the disorders.

**Case example - adjustment disorder**

Jason Tan, an 8 year-old primary 3 boy, was feeling insecure in response to parental conflicts. The mother accused the father of having an extra-marital relationship. The father left the family after several attempts to appease the mother without success. The mother was equally distressed and less attentive to the emotional needs of the child. He acted younger for his age and wetted the bed and needed to be fed and accompanied in his sleep. He also became very clinging to the mother and shadowed her around in the home. His study showed a sharp deterioration.

The mother thought that the child was naughty and refused to study. As a result, the mother meted out physical punishment on him. This lasted for about a month before she sought help.

With treatment, the child made a rapid recovery and regained his confidence to pass his school examination with good results. The mother also began to understand herself and the child better.

**Post-traumatic stress disorder**

This arises as a response to a stressful event or situation of an exceptionally threatening or catastrophic nature which is likely to cause pervasive distress in almost anyone e.g. natural or man-made disasters, serious accidents, witnessing the violent death of others, or being the victim of torture, terrorism rape or other crime.

Typical symptoms include episodes of repeated reliving of the trauma in intrusive memories ("flashbacks") or dreams, occurring against the persistent background of a sense of "numbness and emotional blunting, detachment from other people, unresponsiveness to surroundings and avoidance of activities and situations reminiscent of the trauma. Commonly, there is fear and avoidance of cues that remind the sufferer of the original trauma.

There is usually a state of automatic hyperarousal with hypervigilance, an enhanced startled reaction and insomnia. Anxiety and depression are commonly associated with the above symptoms; signs and suicidal ideation is not infrequent. Excessive use of alcohol and drugs may be a complicating factor.

The onset follows the trauma with a latency

period which may range from a few weeks to months (but rarely exceeds 6 months). The course is fluctuating but recovery can be expected in the majority of cases. In a small proportion of patients, the condition may show a chronic course over many years and a transition to an enduring personality change.

**Case example - post-traumatic stress disorder**

Julia, a 10 year old primary 4 girl, witnessed the killing of her mother by the father. The father suspected the mother was having an affair with a married man. One evening at home, after a heated argument, he stabbed her in the chest with a kitchen knife. The mother bled profusely and died in hospital on the same night. The child became frightened and her mind was filled with the image of the incidents. Vivid memories of the killing kept recurring in her mind. She was distressed and could not sleep and eat for a few weeks thereafter. She also had difficulty going near the kitchen as it reminded her of the incident. Every night, her sleep was interrupted and she had nightmares. She would wake up and cry several times a night.

**Case example - stress ulcer**

Kok Keong, a 11 year-old primary 5 boy from a prestigious and competitive school, has not been able to cope with his studies for the past one year. He started to develop recurrent painful ulcers in his mouth. This led to his absence from the school. These painful ulcers were especially prominent and frequent near examination time. In addition, he also had pulling headaches continuously. He was not able to concentrate and do his homework. His parents were very worried about him and were at a loss as to what to do. He was a friendly and lovable boy.

Psychological testing and examination findings showed that he had low average intelligence. This, to a large extent, explained his poor school performance. He was advised and transferred to a neighbourhood school to join in the same class as his cousin who also studied there. He was happy in the new school and his ulcers soon disappeared. He also picked up in his school work and did well in his examinations.

**What is the management of stress in children?**

The right start is to be aware that children can be under stress. The ability to recognise distressed children and an understanding of the source of stress would go a long way in helping to remove or ameliorate stressful situations.

Efforts are then to be directed to elicit the perceptions of the parents on the child's problems and to dispel whatever misconceptions and misinterpretations that they may have on the child.

The fact that individuals react differently to life events is universally accepted. The reasons for such variability are many and include prior experience, genetic predispositions, temperament, current motivation, acquired coping styles, family support and stability. In order to understand whether the child can deal effectively with stress, such individual differences must be evaluated.

Treatment may consist of counselling, behavioural therapy and pharmacological approaches.

Many cases will simply respond to explanation and supportive counselling. Collaborative therapy with the family is of crucial importance. Parents should be brought into the treatment plan at the outset in order to resolve whatever difficulties the child may have in the family. Often, liaison with the school is also required to deal with his learning problems and relationship difficulties with his peers.

Behavioural therapy is concerned with teaching relaxation therapy, with more effective coping skills and with stress inoculations.

Drugs such as diazepam (valium), lorazepam(ativan), chlordiazepoxide or imipramine, may be useful in decreasing the anxiety, phobic or depressive symptoms. However, drugs should be prescribed only if the symptoms are overwhelming and distressing and for a brief period of a week or two.

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# Exercise in Pregnancy

The Physician and Sports Medicine
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The appropriateness of various forms of exercise during pregnancy is controversial. This article discusses the physiological and anatomical adaptations to pregnancy that affect the ability to exercise. It also provides clinical guidelines for recommending exercise or participation in competitive sports during pregnancy.

Double blind trials of exercise during pregnancy are rare because of inherent ethical considerations. Most recommendations are based on animal studies or empirical observations of pregnant athletic women.

Previous recommendations for exercise during pregnancy has been controversial. In 1985, the American College of Obstetricians and Gynaecologists recommended exercise of no longer than 15 minutes with a maternal heat rate not exceeding 140 heats per minute and a core temperature not to exceed 38°C. In 1994, these guidelines were modified to read that most women "can exercise moderately to maintain cardiorespiratory and muscular fitness throughout pregnancy and the postpartum period."

Absolute contraindications to exercise in pregnancy were congestive heart failure, valvular heart disease with an increased risk of heart failure, severe hypertension, uterine bleeding, premature rupture of membranes and incompetent cervix.

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The relative contraindications were anaemia, thyroid disease, diabetes requiring medication, breech presentation in the third trimester, multiple pregnancy, essential hypertension, and excessive weight changes.

The article discussed exercise safety tips for the pregnant woman. During exercise, ensure adequate fluid intake, wear clothing that allow adequate ventilation. If there is a febrile illness, do not exercise. Especially in the third trimester, avoid supine exercise, repetitive bouncing or jerky movements, exercise that require significant use of the Valsalva's maneuver. Exercise regimens should emphasize low-impact activities e.g. swimming; avoid those that involve low oxygen states e.g. scuba diving. The exercising pregnant woman should be encouraged to follow a diet that emphasizes complex carbohydrates to minimize fetal ketosis. In the first 15 weeks of pregnancy, participation in competitive team sports is acceptable provided that the woman understands the potential but unproved risks for fetal loss from or abdominal trauma.

Exercise during pregnancy remains a somewhat controversial issue. Modification to the type and intensity of exercise has to be made, and the pregnant woman be informed of the potential risks associated with exercise so as to enable her to decide on the continued involvement in athletic activities.

Reviewed by Dr Kiran Kashyap

# Insertion of Norplant

**Kang W**

## Introduction

Norplant is a long acting subdermal contraceptive implant. It consists of six Levonorgestrel releasing capsules which are inserted subdermally in the medial aspect of the upper arm. It provides effective contraception with a failure rate of less than 0.5% for five years. Proper counselling prior to insertion is crucial to the acceptance and continuation of Norplant method. A medical history and gynaecological examination should be carried out to exclude any contraindication to the use of progestogen contraception. Proper insertion techniques which include asepsis and correct placement of implants are also vital to avoid infection, scarring and subsequent removal problem and complications.

## Insertion Procedure

### *Timing of Insertion*

Insertion should preferably be performed within seven days from the onset of menses. However, Norplant may be inserted at any time during the cycle provided pregnancy has been excluded and an additional non-hormonal contraceptive method is used though out the entire cycle since the last menses.

### *Equipment Needed*

The equipment for Norplant insertion includes the following (figure 1):

a) Norplant trocar
b) 5 ml syringe, anaesthetic needle, local anaesthesia
c) Non-toothed forceps
d) Scalpel with # 11 blade
e) Norplant template

*fig. 1*

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### *Preparatory Measures*

The patient is to lie supine with her arm (preferably the one she uses less) extended in a straight line or flexed at the elbow and rotated externally (figure 2). Mark the incision point and the implant insertion direction with a Norplant template. Wash the insertion area and apply the antiseptic solution. Cover the area with sterile drapes. Anaesthetize the insertion area in a fanlike position along the direction of capsule insertion.

*fig. 2*

### *Norplant Insertion*

Make a 2 mm incision. Insert the tip of the trocar through the incision beneath the skin. Note the 2 marks on the trocar (figure 3). Advance the trocar under the skin in a superficial plane to the mark nearer to the hub of the trocar (figure 4). Do not force the trocar. Try another direction if any resistance is felt. Next, remove the plunger and load the first implant capsule into the trocar using the non-toothed forceps (figure5). Gently advance the implant with the plunger towards the tip of the trocar until resistance is felt. Hold the plunger steady and bring the trocar back along it until it touches the handle of the plunger (figure 6). The implant is released when the mark close to the tip of the trocar is visible in the incision. Check the released implant by palpation.

*fig. 3*

*fig. 4*

*fig. 5*

*fig. 6*

fig. 7

Do not remove the trocar. Fix the position of the released implant with the left forefinger and advance the trocar along the side of the finger. Load the other implants in the similar manner. After the insertion of the sixth implant, palpate the implants to make sure that all six have been inserted (figure 7).

***Post Insertion Management***

After the Norplant insertion, press the edges of the incision together and close it with a sterile bandage. Suturing is not necessary. Cover the insertion site with a dry compress and wrap the gauze around the arm to ensure haemostasis. Advise the patient to keep the arm dry for 2-3 days. Remove the gauze after 24-48 hours and the sterile skin closure when the wound has healed, normally after 3-5 days. Indicate in the patient's record the number of implant capsules inserted to facilitate future removal.

***Complications of Norplant Insertion***

Besides the adverse reactions such as acne, hisutism, menstrual, endocrinological (e.g. weight gain) and central nervous system (e.g. depression) changes typical for progestins, Norplant Insertion can cause itching, pain or discoloration at the implant site. Other complications include infections, spontaneous expulsions from too superficial an insertion, excessive scarring at the insertion area and too deep an insertion into the tissue resulting in difficulty in removal. There will be some bruising and tenderness for the first few days after the anesthetic wears off

**Conclusion**

Correctly and carefully performed, subdermal implant insertion provides the basis for successful use and subsequent removal of Norplant. It is recommended that health care professionals performing insertion and removal of Norplant implants should undergo training on the proper techniques prior to attempting these procedures. **Only trained clinicians should perform the procedures.** This is to avoid complications such as infection, scarring and difficulty in removal.

**From the Family Physician's Perspective**

**Comments by Dr Siaw Tung Yeng**

Practice Tips and Management Issues

(i) One should have adequate training on the proper techniques on insertion and removal of Norplant. Practicing on an arm model is useful. The instruments, especially the trocar should be in excellent condition.

(ii) Pre-insertion and Post-insertion counselling on the benefits and side effects of Norplant are vital for a successful doctor-patient encounter.

(iii) 1 ml of 1% Lignocaine (50mg in 5 mls) just beneath the skin to raise the dermis above the underlying tissue is enough to anaesthetize two adjacent fan-like rays. Too much of LA will reduce the sensitivity in palpating for the implants after insertion.

(iv) Never force the trocar and the trocar should raise the skin at all times during insertion to ensure that the implant is not inserted into the subcutaneous plane.

(v) Always confirm with the patient that all the six implants are successfully inserted.

# A New Kind Of Kelong

**Goh LG**

The weekend was spent in a new kind of kelong. An invitation was issued by my youngest brother for a family outing. Out of the band of six brothers and three sisters, he got together two of the sisters, five brothers, three nephews, five nieces and three friends.

We left for the Causeway. There, one nephew was refused entry because he is now too big for the baby face photograph in his passport. No amount of negotiation worked this time and sadly, one of the brothers decided to back out of the trip with his son. The rest of us headed for the kelong off Pulau Sibu in the East Coast of Malaysia.

It took us two hours by van and we soon reached the pier. Half an hour more by boat and we were there. It looked like any kelong from the boat except there were already many people at work, fishing, each with a fishing rod.

The boatman passed our gear to another man standing on the platform and we got up out of the boat. We were ushered to a big dormitory type of structure, complete with double decked iron beds and double decked platforms. The platforms and beds were in five clusters and together, could easily accommodate *50* people. At the centre of this big hall was the dining area. So, this is a hotel in the sea. A new use for a kelong.

We picked one cluster of platforms by the window and quickly got ready to go fishing. Extending from the big hall and all round the kelong was a platform. At the back of the kelong we saw the area where the nets used to be lowered. But there were no more nets and no more pulleys that used to pull the nets in. This is a kelong dedicated to fishing enthusiasts.

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## The first bites

Many small fishes were being landed by those who had come earlier. The bait used consisted of small flies of plastic and a few strands attached, each to a hook. There must have been 10 hooks along the string. All you needed to do was throw the string complete with the flies into the water and then reel it in at a leisurely pace. You were rewarded with 3 or 4 little ikan kuning and other fish. Some of the anglers were obviously prepared. They even had a pump to keep the water in the pail where the caught fish are put, well oxygenated. Without that the fish would quickly turned on their side and die.

## Sun tanned

The cool breeze fanned the skin and surreptitiously, one became quite suntanned in the matter of 2 to 3 hours without realising it. Soon, those of us who did not take precautions by wearing long sleeved shirts or use sunblocks were looking like red lobsters. And even after two months, the tan has not entirely faded.

## The right bait and hooks

While some anglers were having success, there were some who had none. That included our party. We went to check what kind of bait these successful people were using as well as the size of their hooks. Sotong strips seemed appetising to the fish below. Strips of dead fish were not so eagerly sought. Also, the size of the hook was important. With appropriate modifications, we were soon landing some fish.

## Fishing for sotong

Soon, it was evening and the flood of golden rays and the setting sun made **a** last splash of glory and retreated leaving behind darkness and a cool evening breeze. Some felt they had had enough and retired to watch the television in the hall. Others got out luminous floats for their baits. We learned that you can fish for sotong using a model prawn made of bright orange plastic with a multi-barbed hook at the tail of the prawn". The head

of the "prawn" is tied to the end of the fishing line. Each cost RM10 ringgit - take it or leave it. My brother bought one and promptly got into action. That venture turned out to be a failure. The "prawn" got entangled with some weeds and with a tug, the line broke clean with nothing at the end. He did not want to buy another one. We subsequently discovered that the "prawns" were being sold for RM5 ringgit each at the pier. Revelation!

**A quiet night**

Not many fishes were being landed although we saw schools of them swimming round the kelong. One angler thought he had caught a big one. He had, but it turned out to be a puffer fish that was at least a foot and a half long. After the excitement attached to landing it, the night settled into quiet darkness. I decided to turn in and open up my survey results to try and make some sense of the figures. I thought I had spent enough time "idling", so I did do some useful work before knocking off.

**A bright morning**

The sun soon crept above the horizon creating quite a sight. It was a majestic sunrise. One cannot help but feel the closeness to the natural beauty of the sea, the waves, the breeze and the early morning splendour. A seagull flew by.

Soon after breakfast, many were back to work again. There was a spate of catches. My brother landed at least a dozen fishes within an hour. I had none.

**The fish that got away**

Suddenly, there was pandemonium. A big fish had been caught and was fighting for its life. Everybody was shouting. The fish made a jump and we saw the silvery body of a fish that was at least two feet long. "It is a barra-kudah", someone shouted. "Don't let him get under the kelong. The line will be cut against the stakes". Someone volunteered to take the line to complete the job. At that very moment, the fish swam under the kelong and the line was cut. It was a let down. The fish had got away.

**Reflection**

All too soon it was time to go home. We had spent two happy days close to nature on this new kind of kelong - one dedicated to those interested in fishing. We surveyed our catch. There were some 30 fishes of all sizes. We had learned the importance of the right bait and the right sized hooks to use. As we left, some new people were taking our places in the big hall.

# GUIDELINES AND INFORMATION FOR AUTHORS THE SINGAPORE FAMILY PHYSICIAN

Authors are invited to submit articles for publication in ***The Singapore Family Physician*** on the understanding that the work is original and that it has not been submitted or published elsewhere.

The following types of articles may be suitable for publication: case reports, original research, audits of patient care, protocols for patient or practice management and review articles.

**PRESENTATION ON THE MANUSCRIPT**

**The Whole Paper**

- Normally the text should not exceed 2000 words and the number of illustrations should not exceed eight.
- Type throughout in upper and lower case using double spacing, with three centimetre margins all round. Number every page on the upper right hand corner, beginning with the title page as 1.
- Make all necessary corrections before submitting the final typescript. Headings and subheadings may be used in the text. Indicate the former by capitals, the latter in upper and lower case underlined.
- Arrange the manuscript in this order: (1) title page (2) summary (3) text (4) references (5) tables and (6) illustrations.
- Send 3 copies of all elements of the article: summary text, references, tables and illustrations. The author should retain a personal copy.
- Their accuracy must be checked before submission.
- All articles are subject to editing.

**The Title Page**

- The title should be short and clear.
- Include on the title page first name, qualifications, present appointments, type and place of practice of each contributor.
- Include name, address and telephone number of the author to whom correspondence should be sent.
- Insert at the bottom: name and address of institution from which the work originated.

**The Summary**

- The summary should state the purpose of and give the main argument or findings.
- Limit words as follows: 100 words for major articles; 50 words for case reports.
- Add at the end of summary an alphabet listing of up to 8 keywords which are useful for article indexing and retrieval.

**The Text**

The text should have the following sequence :

- **Introduction**: State clearly the purpose of the article.
- **Materials and methods**: Describe the selection of the subjects clearly. Give references to established methods, including statistical methods; provide references and brief descriptions of methods that have been published but are not well known. Describe new or substantially modified methods, giving reasons for using them and evaluate their limitations. Include numbers of observations and the statistical significance of the findings where appropriate.

  Drugs must be referred to generically; all the usual trade names may be included in parentheses.

  Dosages should be quoted in metric units.

  Laboratory values should be in SI units with traditional unit in parentheses.

  Do not use patients' names, initials or hospital numbers.
- **Results**: Present results in logical sequence in the text, table and illustrations.
- **Disk & Electronic Production**: If your article is accepted for publication, we may invite you to supply a copy on a 3.5 inch disk, using Microsoft Word software.

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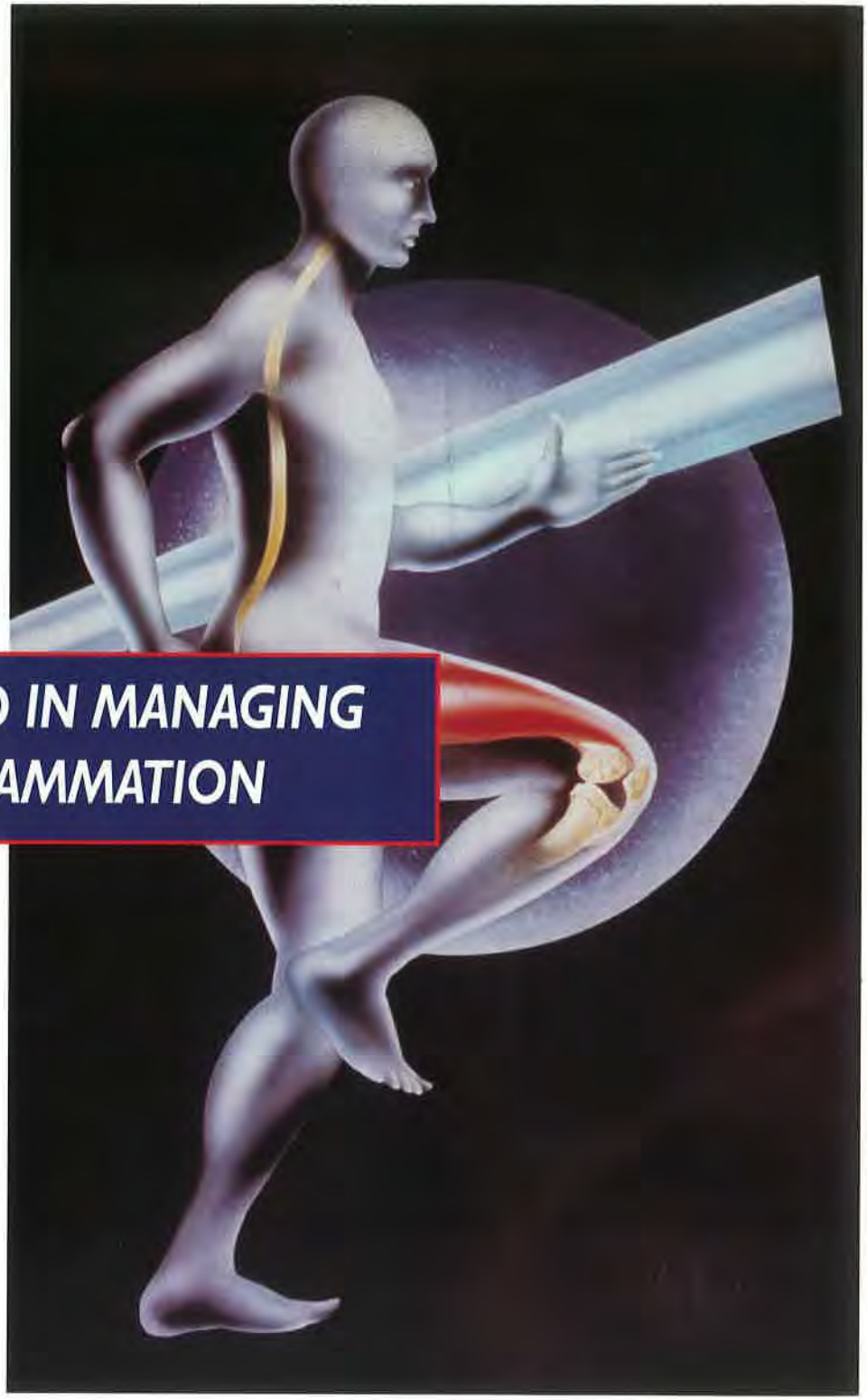
Current concept strongly supports a dual approach to the effective management of pain - peripheral & central.

The peripheral action of [Orudis/Oruvail] is well known and recent studies also confirm its central analagesic effect[1-4].

Orudis/Oruvail is available in various formulations to effectively control the various types of pain from acute to chronic.



# FURTHER AHEAD IN MANAGING PAIN & INFLAMMATION

FURTHER AHEAD

KETOPROFEN

**Orudis** E-100 IM Inj

**Oruvail** Capsules Gel

**PRESCRIBING INFORMATION**

*PROPERTIES :* Ketoprofen is a non-steroid anti-inflammatory drug of the propionic group, derived from aryl-carboxylic acid. Ketoprofen possesses an anti-inflammatory, analgesic and antipyretic action; it inhibits the synthesis of prostaglandins and also has an inhibiting activity on platelet aggregation. *INDICATIONS :* Indications are as follows :- Long term symptomatic treatment of: chronic inflammatory rheumatism particularly rheumatoid polyarthritis, ankylosing spondylarthritis or related symptoms such as Fiessinger-Leroy-Reiter syndrome and psoriasic rheumatism; certain painful and disabling osteoarthritis. - Short term symptomatic treatment of acute attacks of : abarticular rheumatism (acute painful shoulder, tendinitis etc.) , microcrystaline arthritis, osteoarthritis, lumbago, severe radiculalgia. *CONTRA-INDICATIONS :* Known allergy to ketoprofen and to substances with similar activity : asthma attacks have been observed in certain patients, especially in patients allergic to aspirin. - Gastro-duodenal ulcer, severe renal and hepato-cellular insufficiency. - Pregnancy: possible teratogeneous risk during the first three months and, during the final three months, possible retardation during labour, premature closure of arterial duct and possible hemorrhage in the newborn infant. - Nursing mothers: in the absence of pharmacological data, ketoprofen is not indicated for nursing mothers. - Children under 15 years of age. *WARNING :* Gastro-intestinal side effects may be serious, particularly in patients receiving anti-coagulants. Physicians should therefore be alert to the appearance of digestive symptoms. In the event of gastro-intestinal hemorrhage, treatment must be interrupted. *PRECAUTIONS FOR USE :* - Patients with a history of gastro-duodenal ulcer. - At start of treatment, attention should be paid to the diuretic volume and to the renal function in patients with cardiac, cirrhotic and nephrotic insufficiency , in patients receiving diuretics, or in cases of chronic renal insufficiency and particularly in elderly patients. - Risk of impairment of IUD efficacity. *INTERACTION WITH OTHER DRUG :* - Ketoprofen should not be administered in association with the following : oral anticoagulants, heparin : increased risk of hemorrhage. Hypoglycemiant sulfamides : amplification of effect. Lithium : amplifications of lithemia. Methotrexate: increase in hematological toxicity. Diuretics : diminution of activity. Ticlopidine : increase in platelet antiaggregant activity. Other NSAIDs : increased risk of ulcer or hemorrhage. *SIDE EFFECTS :* Gastro-intestinal disorders, digestive hemorrhage, intestinal perforation. At 200mg per day per os : increased occult digestive blood loss. Headache, dizziness, drowsiness. - Dermatological or respiratory hypersensitivity, (possibility of asthma attack, particularly in patients who are allergic to aspirin or to other NSAIDs). - Moderate reduction in hemoglobin rate ; some rare cases of slight leucopenia have been observed. - For side effects related to renal insufficiency see PRECAUTIONS FOR USE. - Rare bullous dermatosis. *ADMINISTRATION AND DOSAGE :* 100mg to 300mg per 24 hour period depending on mode of administration. In case of minor digestive side effects (heartburn, pain), it may be useful to prescribe topical gastro-duodenal medication. No reduction in absorption has been observed when ketoprofen is associated with aluminium gels. *OVERDOSE :* The effects observed in cases of intoxication relative to doses of ketoprofen of up to 2g have always been benign. In the event of massive overdose, (accidental or deliberate), symptomatic treatment is required. **REFERENCES 1-4:** Available upon request.

S/ORU/94-5

MediAd

*Further information available on request*

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