

COLLEGE OF FAMILY PHYSICIANS SINGAPORE



# The SINGAPORE FAMILY PHYSICIAN



## COMMON GASTRO-INTESTINAL PROBLEMS

- Peptic Ulcer Disease
- Perianal Conditions
- Constipation
- Gall Bladder Disease

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## **FAMILY VALUES AND FAMILY MEDICINE**

As the International Year of the Family draws to a close, it is pertinent to explore the relationship between Family Values and Family Medicine. The broader definition of "family" refers not just to the genetic family or the legal entity; it encompasses a group of people who are interdependent physically and emotionally. It is an environment for those who compose it — the immediate context in which a person exists and functions, a type of human relatedness. It is the basic unit and the building block of society.

Values are beliefs and attitudes which influence our thinking and behaviour — they shape who we are, how we live and how we interact with others. Family values are desirable characteristics of a family that will result in good, healthy family function, upholding the importance of family ties and contributing to the collective good. Individual and societal values may change from generation to generation, but family values which reflect collective beliefs and approaches to family life will enhance the wellbeing of families and underpin the progress of societies and indeed the survival of the human species.

The state of the family has a strong bearing on the social fabric of society as a whole. Happy, harmonious and healthy families make for a strong community and a cohesive, stable and dynamic society. "The family is the heart of the nation and family values its lifeblood."

### **TRADITIONAL FUNCTIONS OF THE FAMILY**

A family provides not only for the physical needs — food, shelter, clothing — of its members. It also caters for their emotional, cultural, social and spiritual needs, nurturing the physical, intellectual and emotional development of its members, and

providing through special ties of kinship and ancestry a sense of belonging, shared identity and continuity. It cultivates good social and moral behaviour, preparing its members for life in society; it transmits the influences of the wider society to its members and protects them from the pressures involved. It transmits values from one generation to the next, and it teaches its members to communicate and to build up interactions and relationships.

Within a strong, healthy family, members learn love, mutual respect and deference, care and concern for each other and understanding and appreciation of each other's feelings and needs, sharing and integration of duties and responsibilities, faithfulness, filial responsibility, solidarity and commitment including making sacrifices, and communication. They take on different roles in the family (for labour, authority, leadership, etc), they sustain and enrich each other's life in a loving, guiding and nurturing environment, to develop their talents and potential and to keep physically and mentally fit and socially active, and they develop patterns of interaction with a capacity to change when change is needed, while still maintaining an identity and structural integrity as a family. From this family background and its broader social and cultural environment and heritage, the individual develops basic attitudes and habits in such widely varying areas as diet, religious beliefs, definition of illness, orientation to work and play, sexual mores and modes of interpersonal communication.

### **CHANGING STRUCTURE AND FUNCTIONS OF THE FAMILY**

The structure and functions of the family change with the passing of time. Different phases of the family life cycle pose particular clinical problems

with formation of relationships, changing roles, social adjustment, separation from family and working out of household responsibilities. The increasing percentage of the elderly in the population brings with itself its own set of problems. Families are also exposed to value systems which undermine family life. Changes in social mores, easier and increasing frequency of divorce with its inherent fragmentation of families, liberalisation of attitudes towards extramarital sex and homosexuality, increased permissiveness in child rearing with greater emphasis on freedom for individual growth and development, the mass media, the changing expectations of women and the gradual progress of 'women's lib' have all resulted in more complex patterns of roles and relationships. This evolution of society has produced changes in the role of the family and confusion of roles within the family which engender many conflicts or problems, as can be seen in the examples of the single parent family and the three generation (extended) family. There are stresses inherent in the structure of this type of family, and also stresses from the processes which have led to that structure. Failure of members to adapt to all these changes can be a source of family dysfunction and ill-health.

#### **FAMILY FUNCTION AND FAMILY MEDICINE**

The family's role in the physical health and psychological wellbeing of its members is a function that is central to the practice of Family Medicine. Families shape health beliefs and habits and perceptions of illness, recognise and label health problems, grant or withhold the sick role, regulate decisions to seek health care and access to

professional care, and influence the likelihood of the doctor's treatment or recommendations being followed or completed. The socio-economic and cultural background of the family influences the incidence and prevalence of many diseases themselves (including psychological illness and suicide), its attitude to preventive medicine and even the presentation of specific symptoms — many groups who face severe life difficulties and social stress but in whom the cultural tradition inhibits free and legitimate expression of their suffering tend to react to stress situations with physical symptoms. Good family values, relationships and interactions which are cultivated and passed on from generation to generation make for a healthy functional family.

Family practice is concerned with the relationship of the family to health, illness and care. The interaction of the family physician, the patient and the family is a dynamic one. The family doctor needs to understand the patient's family background and not only how it affects the patient and his illness but also how the illness of the patient affects the family. Furthermore, the patient may present with symptoms that reflect family problems; indeed the family itself may be the patient. Diagnosis, intervention and treatment in Family Medicine occur at the level of interaction among individuals in families and between the family and its surrounding environment. This interactional perspective is the heart of family practice, and a healthy family which functions well is therefore the prime goal of Family Medicine care.

*Dr Moti H Vaswani*

## FIVE KEY FAMILY VALUES OF SINGAPOREANS

Singaporeans have identified five commonly shared family values:

- Love, Care and Concern
- Mutual Respect
- Filial Responsibility
- Commitment
- Communication

### **Love, Care and Concern**

Family love provides comfort and security. It makes a person feel appreciated and treasured. Family members cherish one another and show mutual love, affection and support.

Care and concern for one another encourage family members to give of their best and extend a helping hand when needed.

### **Mutual Respect**

Mutual respect is positive regard and consideration for each other. It means recognition, acceptance and tolerance of differences. It involves adopting a give-and-take attitude and allows for forgiveness.

A person who feels respected by family members learns to respect others. Multicultural Singapore needs to preserve racial and religious harmony.

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*Reprinted from:*

*Singapore Family Values  
Ministry of Community Development  
Singapore*

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The family plays a fundamental role in cultivating cultural, racial and religious harmony.

### **Filial Responsibility**

Filial responsibility means honouring and supporting one's parents and grandparents, and providing for them in their old age.

Filial responsibility is more than a duty or an obligation; it is a natural fruit of the close bonds among family members.

### **Commitment**

Commitment is the willingness among family members to stand by one another through life's ups and downs. It is the glue which makes the family stick. Sometimes, this involves making sacrifices.

A family is a team. The well-being of a family depends on shared responsibility. Family members fulfil their duties and obligations and lay a firm foundation for security and happiness.

### **Communication**

Effective communication is essential in the family. It enables family members to understand each other's feelings, ideas and views better. This builds trust and fosters close and enduring relationships.

Family bonds are strengthened through open and honest communication.



## ABDOMINAL PAIN IN GENERAL PRACTICE

This issue focuses on some common conditions which will give rise to abdominal pain, and its management in General Practice.

Abdominal complaints rank amongst the top for symptoms / diseases seen by family physicians and the causes cover a wide clinical spectrum, from simple gastroenteritis to complicated life-threatening ones like a perforated peptic ulcer. Most cases seen are not dramatic, but the careful physician should always be on the constant lookout for the occasional patient with atypical presentation or a serious underlying pathology presenting with minimal symptoms and signs which can be easily missed.

A good history and a thorough physical examination of the abdomen are essential first steps. It is helpful to classify causes of abdominal pain into two broad groups, Acute and Non-acute causes, undoubtedly as we have practised unconsciously one way or another.

Causes of acute abdominal pain which are life-threatening and which need to be excluded immediately are acute appendicitis, acute intestinal obstruction, perforated peptic ulcer, acute pancreatitis, ruptured ectopic pregnancy, twisted ovarian cyst and obstructed hernia. Other less acute conditions are acute cholecystitis, biliary colic, renal colic and pelvic inflammatory disease. These too need immediate attention and referral.

The next group, the non-acute causes, relate to those with chronic or recurrent abdominal pain. Non Ulcer Dyspepsia (NUD) or Functional Dyspepsia forms the largest group and recently the role of *H pylori* in causing chronic dyspepsia has been highlighted. The diagnosis of NUD is one of exclusion and where necessary, a gastroscopic examination and biopsy should be

performed to exclude organic disease such as peptic ulcer and carcinoma of the stomach, especially in those over 40 years of age. Peptic ulceration and the latest in its management, especially with regards to maintenance therapy, is discussed in a succinct and useful article by Prof Richard Guan. Dr A F P K Leong and Dr C Y Hong deal with two very common every day GIT problems in General Practice - the management of perianal conditions and constipation.

It is worth mentioning at this juncture that in the very young and the elderly, atypical presentation may occur. For example, falls and confusional states may be the initial presentation of an underlying abdominal pathology such as a bleeding GIT in an elderly patient. Severe pain, guarding and rigidity which are synonymous with a perforated viscus in the younger patient are often minimal or absent in the elderly. A total white cell count and a differential may not show leucocytosis in up to a third of these patients. Only clinical suspicion, recognition and early referral will help to ensure a positive outcome with minimal morbidity and mortality.

Finally, there are two very important points worth reiterating. Firstly, in our approach to dealing with abdominal pain, there is a large psychological underlay in chronic pain syndromes such as NUD and Irritable Bowel Syndrome (IBS), and the wise physician will keep this in mind and explore whether psychological and psychiatric problems may be present, in particular depression. Simple psychotherapy and counselling and if necessary treatment with anti-depressants should be given and referral to a psychiatrist may be required in difficult cases.

Secondly, besides intra-abdominal causes of pain, extra-abdominal causes need to be remembered as

well or they could be easily missed. These are acute myocardial infarction, lower lobe pneumonia, pre-eruptive stage of herpes zoster, ruptured aortic aneurysm and Munchausen syndrome.

*Dr David H K Lim*

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# ACUTE AND LONG TERM TREATMENT OF PEPTIC ULCER DISEASE

*R Guan. MB, FRCP, FRCPE, FAMS*

Peptic ulcers are relapsing conditions and all duodenal ulcers and most gastric ulcers heal with time without medications.

## TREATMENT OF ACUTE PEPTIC ULCERS

Several groups of drugs can be used in the acute treatment of peptic ulcers. Antacids neutralise secreted acid. Agents that reduce acid secretion include  $H_2$  receptor antagonists, acid pump inhibitors, and prostaglandin analogues. Prostaglandins also have site protective effects. Other drugs in this last group include sucralfate, and bismuth compounds.

**Table 1. Drug Groups Used in the Treatment of Peptic Ulcer**

Antacids
Muscarinic Inhibitors
$H_2$ receptor antagonists
Proton pump inhibitors
Prostaglandin analogues
Surface acting agents

No significant difference has been shown between eventual ulcer healing by site protectors and  $H_2$  receptor antagonists. Some studies suggest that bismuth compounds (site-protectors) are superior to continued cimetidine therapy in the treatment of cimetidine - resistant duodenal ulcers<sup>1</sup>. Most of the site protective agents, however, have inconvenient dose regimens, are slow to relieve ulcer symptoms and some are poorly tolerated.

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Ideally, any treatment should be given as a once daily dose to encourage good patient compliance. Acid inhibitors are superior to site protective agents, with respect to the speed of pain relief, rate of healing and convenience.

Few details are known about the ability of drugs to prevent ulcer complications. This property presumably correlates with their ulcer-healing ability.

Not all acid inhibitors give the same rate of healing. The greater the control of gastric acid over the 24-hour period, the greater the rate of healing. Antacids and prostaglandins are least effective in this respect.

Traditionally,  $H_2$  receptor antagonists have been used in the treatment of peptic ulcers. This group of agents gives moderate acid inhibition which is adequate in healing most peptic ulcers. Duodenal ulcers usually heal better and faster than gastric ulcers. The duration of therapy for duodenal ulcers is usually 4-6 weeks and that for gastric ulcers, 8-10 weeks. Healing rates are also dependent on ulcer size and the bigger ulcer usually takes longer to heal. A small percentage of patients however are refractory to  $H_2$  receptor antagonists.

Among the acid inhibitors, acid pump inhibitors provides faster pain relief and more reliable healing than the  $H_2$  receptor antagonists, due to more effective control of gastric acid secretion. Duodenal ulcer healing rates after 2 weeks of omeprazole therapy are comparable to rates seen after 4 weeks of  $H_2$  antagonist therapy<sup>2</sup>. Four weeks of omeprazole yield gastric ulcer healing rates similar to those seen after 6 weeks of  $H_2$  receptor antagonist therapy<sup>3</sup>. Healing by acid pump inhibitors appear to be independent of smoking history or ulcer size.



**Table 2. Receptor and Pump Blockers in Peptic Ulcer Disease**

Agents	Healing doses	Maintenance doses
Cimetidine	400 mg twice daily / 800 gm at night	400 mg at night
Ranitidine	150 mg twice daily / 300 mg at night	150 mg at night
Famotidine	40 mg at night	20 mg at night
Omeprazole	20 mg at night	10 / 20 mg at night

**Table 3. Strategy for Acute Peptic Ulcer Treatment**

H <sub>2</sub> receptor antagonists : 95% heal after 8 weeks	
H <sub>2</sub> resistant ulcers	: Change to a different H <sub>2</sub> receptor antagonist Use combination therapy: denol + H <sub>2</sub> antagonist sucralfate + H <sub>2</sub> antagonist PGE2 + H <sub>2</sub> antagonist Proton pump inhibitors Surgery

### RISK FACTORS FOR DELAYED HEALING

Slow healing in duodenal ulcer patients is associated with smoking, psychological stress, large ulcer size, and a previous history of slow ulcer healing. The only factor that appears to affect ulcer healing in gastric ulcer patients is ulcer size.

### THE RECALCITRANT ULCER

A small percentage of patients are refractory to H<sub>2</sub> receptor antagonists. These patients are usually heavy smokers, might not be compliant with medications, are on NSAIDS, or have relatively huge ulcers. Assuming that the diagnosis of peptic ulcer disease is correct, these ulcers can be treated by increasing the dose of the current medication, using a combination of agents (eg H<sub>2</sub> receptor antagonists and a site protector), changing to a more potent drug or by surgery. Bardhan found that 85% of ulcers that are refractory to H<sub>2</sub> receptor antagonists heal after 4 weeks of omeprazole therapy and 96% of such ulcers heal after 8 weeks<sup>4</sup>.

### LONG TERM MANAGEMENT OF PEPTIC ULCERS

Peptic ulcer is a relapsing condition. Up to 70% of patients with peptic ulcers treated with acid inhibitors (H<sub>2</sub> receptor antagonists or omeprazole) relapse within 1 year of cessation of treatment<sup>5</sup>. The rate is slightly lower for gastric ulcers. Patients who smoke more than 10 cigarettes daily often tend to have ulcer relapse. These patients together with those with complicated ulcer histories, concomitant NSAID therapy, and those with concomitant medical conditions would need long term management.

**Episodic** acute treatment is adequate for the majority of peptic ulcer patients who relapse. About 25% of peptic ulcer patients have more than 2 relapses a year or have complications. For these subsets of patients **Maintenance** is recommended. Another indication for maintenance therapy is for patients who find it difficult to give up smoking. Maintenance with half dose H<sub>2</sub> receptor antagonists reduces relapse rates to about 20-30%. Full dose H<sub>2</sub> receptor antagonist maintenance reduces this relapse rate further to about 12%. Half or full dose

**Table 4. Treatment of Ulcer Recurrence**

Patients < 2 recurrences / year:	Episodic treatment
Patients < 2 recurrences / year: OR those with complicated ulcers	Maintenance treatment with any of the agents used for acute treatment
	Elimination of helicobacter pylori

acid-pump inhibitors have also been used in the maintenance therapy of peptic ulcer disease. There appeared to be no difference between the adverse events profile during the long term use of omeprazole and short term treatment with either omeprazole or the H<sub>2</sub> receptor antagonists.

Sucralfate maintenance reduces recurrence, and no significant difference has been observed in sucralfate maintained relapse rates compared with H<sub>2</sub> receptor antagonist maintenance. Compliance is easier with the latter at a once daily dose.

Maintenance should ideally be for an indefinite period.

Acute treatment with bismuth compounds reduce the 12-18 month relapse rate of duodenal ulcers compared with H<sub>2</sub> receptor antagonists. This is probably related to its ability to eradicate *Helicobacter pylori*. It is uncertain whether acute treatment with sucralfate reduces the rate of recurrence of duodenal ulcer. Such treatment has not been found to reduce the relapse rate of gastric ulcers.

Eradication of *H pylori* from the stomach has been found to be related to a reduction of the relapse rate of peptic ulcer and is now being used in the management of complicated peptic ulcers and

also in the frequently relapsing ulcers. *Helicobacter pylori* elimination regimes that have been found to be effective include bismuth salts + flagyl + antibiotic (amoxicillin)<sup>6</sup> or omeprazole + antibiotic (amoxicillin)<sup>7</sup>.

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# CURRENT CONCEPTS IN THE MANAGEMENT OF PERIANAL CONDITIONS

A F P K. Leong, FRCSE

## INTRODUCTION

Recent insights in the pathology and the development of new therapeutic modalities have led to changes in the management of perianal conditions. This article reviews some of these recent changes and their implications for treatment.

## HAEMORRHOIDS

Anatomical dissection of the anal canal has shown that haemorrhoids arise from structures known as anal cushions<sup>1</sup>. These cushions comprise of blood vessels, arteriovenous shunts, smooth muscle, elastic and connective tissue. These anal cushions are thought to be responsible for the precise control of continence. Haemorrhoids occur when these cushions hypertrophy and become congested or displaced. Displacement is a result of stretching of the elastic tissue called the ligaments of Parks, which anchor the cushions to the walls of the anal canal. The bright red bleeding is from the arterial component of these anal cushions. This observation was difficult to explain when haemorrhoids were thought to be venous varicosities in the anal canal. Chronic or repeated congestion results in the stretching of the elastic ligaments of Parks resulting first in intermittent prolapse followed by a permanent prolapse.

In epidemiological studies, Burkitt has demonstrated that a highly refined, low-fibre, high carbohydrate diet results in constipation and

a higher incidence of haemorrhoids<sup>2</sup>. On the other hand, a high fibre diet reduces the risk of haemorrhoids. While increased intra-abdominal pressure and straining at stool undoubtedly account for many cases of haemorrhoids, some patients claim the absence of these pre-disposing causes. In these cases vascular "fragility" and sensitivity to oestrogens are thought to contribute to haemorrhoidal disease<sup>3</sup>.

Rectal bleeding is frequently ascribed to haemorrhoids, because of its high frequency in the local population. Bright red painless bleeding at the end of defaecation is characteristic. Any deviation in the nature of rectal bleeding from this characteristic pattern requires further investigation. The presence of associated symptoms of pain, mucus discharge or change in bowel habits requires at least a sigmoidoscopic examination before the patient is treated for haemorrhoids.

Various treatment modalities are available. Common to all treatment regimes is bowel regulation. Both constipation and diarrhoea should be avoided. Increase in the rectal pressure in these two conditions predisposes to or aggravates any pre-existing haemorrhoids. The most effective bowel regulator is a high fibre diet together with an adequate fluid intake. Bulk-forming agents (eg bran, psyllium) may be prescribed to initiate a high fibre diet and has been shown to be effective in treatment of early (first and second degree) haemorrhoids<sup>4</sup>.

Topical treatments currently available commercially consist of antiseptics, anaesthetics, anti-inflammatory, vasoactive or anti-thrombotic drugs. While they may have some action in acute

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exacerbations, they have no long-term therapeutic value. In particular, a histological study of haemorrhoids show no signs of inflammation. There, therefore, appears to be no basis for the use of anti-inflammatory agents. Long term use of such agents may result in mycotic infection and eczema. Oral vasoactive agents have recently been introduced. While perhaps useful in the acute stage, they are also not useful in the long-term and have no effect on haemorrhoidal prolapse.

For early haemorrhoids, the treatment is centred on creating fibrosis and fixation at the pedicle of the internal haemorrhoids. The displaced, hypertrophic anal cushions are restored to their normal positions by this. Current methods to achieve this include injection sclerotherapy with 5% phenol in almond oil, rubber band ligation, infrared coagulation and electrocautery.

Haemorrhoids which require digital reduction or which are permanently prolapsed (3rd and 4th degree) require surgical excision. Patients with chronic bleeding and anaemia that fail to respond to simpler therapeutic manoeuvres are also surgical candidates. Currently the use of laser or diathermy for excision appears to confer some benefit in terms of post-operative pain reduction when compared to traditional scissor excision<sup>5,6</sup>.

### ANAL FISSURE

Fissures are areas of denuded epithelium of the anal canal overlying the internal sphincter. They are usually single and occur in the midline posteriorly or less commonly in the anterior midline. Chronicity of the fissure is indicated by the presence of indurated edges, and external skin tag just below the fissure and / or a firm, whitish, polypoidal structure above the fissure called a hypertrophic papilla. The latter is non-neoplastic but is often confused with adenomatous polyps. The presence of multiple fissures or fissures that occur at positions other than the midline are suspicious and may suggest malignancy, inflammatory bowel disease or sexually transmitted disease. The characteristic feature of anal fissures is the presence of a sharp pain associated with bright red bleeding during defaecation. While the nature of the bleeding resembles that from haemorrhoids, the presence

of pain often described as tearing, burning or cutting, is the distinguishing factor. Digital examination is often difficult in the presence of the anal spasm seen in this condition. Application of a topical anaesthetic is usually required prior to a gentle examination.

Fissures which are of short duration i.e. less than one month may heal spontaneously with stool softening using high fibre diet or hydrophilic bulking agents. Warm sitz baths are soothing and help reduce the anal spasm. Surgical treatment is considered if the fissure remains refractory after one month of supervised conservative treatment. Intolerable pain may hasten the decision for surgery. If there are signs of chronicity, conservative measures are unlikely to help and surgery is recommended. The current surgical treatment of choice in a lateral internal sphincterotomy which involves division of the lower portion of the internal sphincter at the right or left lateral position. In excess of 90% of the fissures will heal in one week and complications are uncommon.

### ANORECTAL ABSCESS

Anorectal abscess results from the invasion of the perianal or pararectal spaces by pathogenic micro-organisms. The origin of infection in most cases appears to be from the anal crypts<sup>7</sup> which lie in the space between the internal and external sphincter. From this space infection can spread upwards above the pelvic diaphragm, through the external sphincter or along the inter-sphincteric space to the perianal skin. Superficial abscesses are the most painful with exacerbations from sitting and moving but not necessarily from bowel movement. Examination reveals the swelling, erythema, induration and tenderness characteristic of any abscess. Deeper abscesses may be more difficult to diagnose. External inspection may not reveal any swelling. Localization of pain may not be exact. The characteristic tender swelling may only be palpated with bidigital examination with the index finger in the rectum and the thumb externally. Systemic sepsis is common in this situation.

The treatment of any anorectal abscess is incision and adequate drainage. If the abscess is small and superficial this may be performed under local

anaesthesia in an outpatient setting. Deeper abscesses, patients with diabetes or who are immunologically compromised should have drainage performed in the operation theatre under adequate anaesthesia. Antibiotics as the sole means of treatment is of limited value in full blown abscesses. They generally only mask the signs of infection temporarily.

Before drainage, the patient should be warned that a persistent fistula may result. This fistulous tract may be identified when the patient is under anaesthesia. An immediate laying open of the tract - fistulotomy - may be performed.

Post-operatively, in superficial abscesses the wound need not be packed. Warm sitz baths and frequent showers of the perianal area is all that is required. Supervised dressings should be reserved for deep or complex abscesses.

#### **ANORECTAL FISTULA**

An anal fistula is a hollow tract connecting at least two openings, one of which is in the anal canal. The aetiology is similar to that of anorectal abscess<sup>7</sup>. Those fistulae that do not arrive from the anal crypts may be secondary to tuberculosis, malignancy, inflammatory bowel disease and diverticulitis.

The main complaint from patients with fistulae is intermittent pain and discharge. On palpation, a cord-like structure linking the external opening to the anal canal can often be found.

Rarely, asymptomatic fistulae may be discovered incidentally around the anal verge. These generally require no treatment. In the majority of cases, surgery is required for fistulae. This involves identifying the tract from the external opening in the perianal skin to the internal opening in the anus and unroofing it completely. A two-stage operation is indicated if the fistula passes deep to a significant amount of sphincter muscle. Immediate unroofing in such a situation would run the risk of muscle separation and subsequent incontinence. In the two stage procedure, the portion of fistula external to the sphincter muscle is laid open. A suture called a seton is then passed through the remaining

tract and tied<sup>8</sup>. The wounds are then dressed. The seton acts as a drain and allows healing of the external wound to be achieved. Several weeks to several months later the seton can be removed. At this time if it is necessary sphincter muscle can be divided. At this stage the fibrosis induced by the seton prevents the divided muscle edge from springing apart, minimizing the risk of incontinence.

Instead of the two-stage fistulotomy technique with the seton, some surgeons perform a sliding advancement flap. In this technique, the surgeon cores out all the fistulous tract from the internal to the external opening. The mucosa around the internal opening is excised. A flap of undermined mucosa is then sutured over the defect created by excising the internal opening.

Packing of the wound following fistula surgery is generally not necessary. Frequent irrigation and a light dressing to prevent the skin edge from bridging over the unhealed deeper portion of the wound is all that is necessary in the majority of cases.

#### **SOLITARY RECTAL ULCER SYNDROME**

Recent research has shed much light on this misunderstood condition. The discovery of benign rectal ulcers within the reach of the finger initially led some investigators to believe that the underlying problem was one of sexual deviation. The current concept of the solitary rectal ulcer syndrome is quite different. It has been demonstrated that the syndrome is most commonly associated with chronic straining at stool with a limited, mostly concealed, degree of rectal mucosal prolapse<sup>9</sup>. The repeated prolapse of the rectal mucosa into the closed upper anal canal results in traumatic changes ranging from an area of erythema to the more characteristic superficial ulceration located anteriorly between 4 to 12 cm from the anal verge.

Symptoms that can be attributed to this syndrome are more common than previously realised. Patients complain of a sensation of incomplete evacuation, tenesmus and the passage of blood and mucus per rectum. Constipation is a common complaint with

the patient resorting to digital disimpaction of stool or the frequent use of enemas and suppositories. In the past, this latter complaint has led many doctors to ascribe the patient's problem to be a psychological one. A differential diagnosis of rectal cancer and proctitis needs to be entertained. Diagnosis is clinched by the well defined histological appearances on biopsy.

In the early phase of this syndrome, explanation of the cause of the syndrome, the avoidance of straining and the use of a high fibre diet improves many patients.

Correction of the rectal mucosal prolapse by surgery or the excision of the ulcerated area has not been universally successful. In recent times 'biofeedback' therapy has been instituted with success in some cases; in particular with those who fail to relax the pelvic floor during defaecation. In this technique the non-relaxing pelvic floor is retrained with the use of electromyography as a means of feedback.

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# MANAGEMENT OF CONSTIPATION: THE PLACE OF LAXATIVE USE

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## INTRODUCTION

Constipation is a common symptom encountered in family practice. To date, there is still no satisfactory definition of the word 'constipation'. When patients complain of constipation, they usually mean 'difficulty in defecation', which involves excessive and sometimes ineffective straining to pass a stool. 'Infrequent defecation' is also taken to mean constipation. In addition, there may be associated symptoms of abdominal discomfort or pain, distension or bloating.

There is a general public misconception that the lack of 'regular' *daily* bowel movements would contribute to the accumulation of toxic substances in the body. Hence the tendency for laxative use in those who do not move their bowels as often as expected. The ease with which these medications are obtained over-the-counter is an important reason for laxative abuse.

## APPROACH TO THE PATIENT WITH CONSTIPATION

In any patient with constipation, treatable causes should be identified first, and managed accordingly, before commencing on laxatives.

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**Table 1. Treatable Causes of Constipation**

<b>Drugs effects</b>
Antacids (aluminium / calcium)
Anticholinergics
Phenothiazines and antidepressants
Iron
Opiates
Diuretics
<b>Structural abnormalities</b>
Anal fissure
Colorectal stricture / neoplasm
<b>Nonstructural conditions</b>
Insufficient dietary fibre
Poor toilet habits
Irritable bowel syndrome

*(Adapted from Marshall, 1990)*

Some causes of constipation are not amenable to treatment, while in others, constipation may or may not improve with treatment. In these, laxative use may need to be considered.

**Table 2. Other Causes of Constipation**

<b>Neurogenic conditions</b>
Cerebrovascular accidents
Parkinson's disease
Spinal cord injuries
<b>Metabolic-endocrine abnormalities</b>
Diabetes mellitus
Hypothyroidism
Uraemia
<b>Nonstructural conditions</b>
Advancing age
Pregnancy

*(Adapted from Marshall, 1990)*

## NON-PHARMACOLOGICAL TREATMENT OF CONSTIPATION

In all patients, non-pharmacological methods should be part of the management strategy. These include:

### 1. Reassurance and education

Education of patient dispelling popular myths, or reassurance that there is no serious underlying disorder is important.

### 2. Toilet habits

To set aside a regular time for defecation would be helpful, especially in patients who lead busy lives, and who tend to repress the urge to defecate when inconvenient to do so.

### 3. Regular exercise

This should be encouraged as it improves muscle tone and emotional well-being.

### 4. Diet and fibre supplements

The best natural bulking agents are raw bran, wheat, fruit and vegetables. A daily intake of 30 gm of dietary fibre (14.4 gm of crude fiber) is recommended. A dietary trial should be maintained for at least one month if constipation is recurrent.

## TYPES OF LAXATIVES

Laxatives work by converting the intestine from primarily an absorbing organ for water and electrolytes to primarily a secreting organ. The mechanisms of action include active electrolyte secretion, decreased water and electrolyte absorption, increased intraluminal osmolarity and an increased hydrostatic pressure in the gut.

**Table 3. Dietary fibre in Common Foods (g/kg)**

<b>Flour</b>		<b>Bread</b>	
bran	440	brown	51
brown	75	white	27
white	30	wholemeal	85
wholemeal	96		
<b>Vegetables</b>		<b>Cereals</b>	
(boiled unless stated)		cornflakes	110
baked beans (tinned)	73	muesli	74
french beans	32	porridge	8
brussel sprouts	29		
cabbage	25	<b>Fruits</b>	
carrots	31	apples (peeled)	20
cauliflower	18	apricots (dried)	240
celery	22	bananas	34
peas (frozen)	120	figs (dried)	180
potatoes		oranges	20
(boiled / new)	20	peaches	140
(baked / old)	25	pears	17
(chips / fried)	32	prunes (dried)	161
sweetcorn (tinned)	57		
spinach	63	<b>Nuts</b>	
		almonds	143
		coconut (dessicated)	235
		peanuts	81

### **Bulk Forming Agents**

These consist of foods high in fiber as well as commercially prepared products which contain polysaccharides (based on wheat bran, plant seed mucilage or ispaghula, plant gums or sterculia) or cellulose derivatives (methycellulose, carboxymethyl cellulose). They act by swelling to form emollient gels and facilitate passage of intestinal matter, and stimulate peristalsis. They cause no systemic effects, but may cause intestinal obstruction, especially if ingested without adequate fluids (recommended to be taken with 240 ml of fluids each time). They are contraindicated in patients with intestinal stenosis.

These products can be recommended for long term use, especially in patients taking low-residue diets, during pregnancy, or in withdrawing patients from stimulant laxative use. They are, however, not adequate in cases of severe constipation, faecal impaction or megacolon.

### **Emollient Laxatives**

These include ducosate sodium, calcium or potassium compounds (e.g. dioctyl sodium sulphosuccinate). These agents are surfactants that soften faecal mass by facilitating the mixture of aqueous and fatty substances in the stool. They are not absorbed but facilitate the absorption of other agents if administered concurrently.

They are useful for short-term therapy of one to two weeks, where straining at defecation is to be avoided, such as in acute perianal disease, after rectal surgery, or when recovering from myocardial infarction. They can also be used in pregnancy.

These agents are not suitable for treatment of chronic constipation.

### **Lubricants**

The main types are the mineral oils. They act by coating faecal content, thereby allowing easier passage of stools. They also cause less colonic absorption of water. Onset of action is 6-8 hours after administration.

Adverse effects are uncommon, but there has been reports of foreign body reaction in lymphoid tissues after absorption of small amounts of these agents. (Absorption will be increased if used together with surfactants.) They may leak from the anal sphincter and cause pruritus. Aspiration of these agents causes lipoid pneumonia, and hence they should not be used just before bedtime, and for debilitated patients. Chronic use can result in impaired absorption of fat-soluble vitamins.

### **Saline Laxatives**

The principal active ingredients are the magnesium, sulfate, phosphate and citrate ions. These are poorly absorbed in the gut, and act by several mechanisms, some of which are still not clearly understood. They exert an osmotic effect because of the poor absorption, causing an increase in volume, which acts as a stimulus for intestinal motility.

The onset of action is fast, about 0.5-3 hours after oral administration, and 5-15 minutes after rectal administration. Magnesium hydroxide is generally safe for mildly constipated adults, but caution should be exercised in giving it to those who have renal impairment, as toxic accumulation of magnesium may occur. Phosphate salts are not recommended for patients in whom fluid restriction is advised (e.g. congestive cardiac failure), as there may be excess sodium retention.

These agents are recommended for acute evacuation of bowel such as before endoscopic examinations, in cases of suspected poisoning, or infrequently in the treatment of acute constipation. They are not suitable for long term use in those with chronic constipation.

### **Stimulant Laxatives**

This class consists of anthraquinone derivatives (glycosides such as cascara, senna, aloe, frangula and rhubarb; and danthron), and polyphenolic compounds (phenolphthalein, bisacodyl, sodium picosulphate). They are hydrolysed by colonic bacteria into active compounds, and act by stimulating intestinal motor function, as well as by



affecting fluid and electrolyte transport. The sites of action are in the terminal ileum and the colon.

A bowel movement usually takes place 6-12 hours after oral administration, and 15-60 minutes after rectal administration. Phenolphthalein may have prolonged action of up to 3-4 days, as it undergoes enterohepatic circulation.

Stimulant laxatives may cause severe abdominal cramps. Long term use may result in water and electrolyte imbalance. Anthraquinone derivatives have been documented to cause melanosis coli. Phenolphthalein may cause dermatological reactions such as erythema multiforme. Danthron has been reported to cause hepatotoxicity. When used for many years, all stimulant laxatives may cause 'cathartic colon', which is a radiographic diagnosis indicating anatomical changes in the colon associated with abnormal motor function.

Stimulant laxatives are not recommended for regular daily use, nor for use in pregnancy and lactation. When used in chronic constipation, the frequency should not be more than twice a week. These agents are particularly useful for relieving constipation due to a change of circumstances, such as when travelling. Bisacodyl has been used in bowel preparation for diagnostic procedures. Phenolphthalein and danthron may cause a red or pink discoloration of urine.

#### **Hyperosmotic Laxatives**

These include glycerin, lactulose and other non-absorbable sugars such as sorbitol. They act primarily by their osmotic properties, which result in increased luminal pressure and stimulation of peristalsis. Glycerin is used only rectally, as it is absorbed when given by mouth. Its onset of action is within 30 minutes after administration, and is generally safe, though occasionally may cause rectal irritation. It is useful in acute constipation, especially in children, but should not be used daily. Lactulose takes longer to act, between 24-48 hours, and may cause flatulence, cramps and even diarrhoea. It is effective in acute constipation, but is more expensive. Long term use may result

in change in bowel flora and diminished effectiveness.

#### **ADVERSE EFFECTS OF LAXATIVE USE**

The stimulant class of laxatives are those most likely to be abused. Chronic use of these substances leads to a variety of systemic and enteric problems, some of which have been mentioned above.

Melanosis coli, which is the accumulation of dark pigments in the lower (and sometimes the upper) gut, is a well documented pathological change in long-term use of anthraquinone-containing laxatives. This occurs after 4-13 months of use, but may disappear 3-6 months after discontinuation.

Cathartic colon, defined by radiological findings of dilatation of the colon, loss of haustration and pseudostrictures, is another well-documented condition of long-term stimulant laxative use. This has apparently not been observed in the last three decades, and may be attributed to laxatives that are no longer in use, e.g. podophyllin.

Laxative abuse is common in patients with anorexia nervosa, bulimia and Munchausen syndrome. These patients may present with diarrhoea, weakness and hypokalaemia.

Other adverse effects, though not so common, of long term laxative use include protein-losing enteropathy and osteomalacia (due to impaired absorption of fat-soluble vitamins).

#### **GUIDELINES FOR CHOICE OF LAXATIVES**

For chronic constipation, bulk forming laxatives should form the basis of therapy. These can be taken daily. Combinations of bulk forming agents should, however, not be used for more than a few days, at infrequent intervals. Stimulant or saline laxatives, if needed to be used for patients with colonic disorders such as diverticular disease or irritable bowel, should be reserved for particularly

**Table 4: Laxatives Available for Use in Singapore**

AGENT	BRAND NAME	ADULT DOSE
<b>Bulk forming agents</b>		
Psyllium hydrophillic mucilloid	Metamucil Fiberall	1-2 wafer dly-tds, or 1 tsp powder dly-tds (with 240 ml water)
Ispaghula husk	Fybogel	1 sachet bd (with fluids ++)
Sterculia	Normacil	5-10 ml or 17 gm sachet dly-bd
Sterculia 62% & frangula 8%	Normacol plus	5-10 ml dly-bd
<b>Emollient laxatives</b> (see 'ducosate sodium' in 'combination preparations')		
<b>Lubricants</b>		
Mineral oil	Lansoyl	1-3 tbsp dly
Liquid paraffin	Agarol	1-2 tsp dly / bd
<b>Saline laxatives</b>		
Na biophosphate 16% & Na phosphate 18%	Fleet enema	1 bottle (2¼ or 4½ tb oz) rectally prn
Na biophosphate 48% & Na phosphate 18%	Fleet phosphate soda	laxative: 4 tsp prn; purgative: 3 tbsp prn
Na citrate 450 mg & Na lauryl sulfo-acetate	Microlax	enema: one 5 ml tube rectally prn
Na picosulphate	Sur-lax	1-2 tab or 10-20 ml nocte
<b>Stimulant laxatives</b>		
Bisacodyl	Ducolax Apo-bisacodyl Fenolax	one 10 mg supp prn, or 1-2 5 mg tab nocte or om
Std senna 7.5 mg / tab as sennosides	Senokot	2-4 tab nocte
<b>Hyperosmotic laxatives</b>		
Glycerin	Fleet baby lax	(children 2-6 years: 1 rectal applicator of 4 ml prn)
Glycerol	Glycerine	one 2250 mg supp prn
Lactulose	Duphalac PMS lactulose Sirolax	starting 10- 30 gm or 15-45 ml dly for 3 days, maintenance 10-25 ml or 5-15 gm dly
<b>Combination preparations</b>		
Ducosate sodium 100 gm (& yellow phenolphthalein 65 mg)	Dialose plus	1-2 tab om or nocte
Phenolphthalein 30 mg & liquid paraffin 5 ml	Agalax Lubarol Liq paraffin & phenolphthalein emulsion	10-20 ml nocte
Glycerin 910 mg & Na stearate 90 mg	Glylax	(children: 1 supp prn)
Plantago afro (Plantago psyllium) 3.25 gm & sorbit 806 mg & Citronic acid 500 mg (per 5 gm sachet)	Mucofalk	1 sachet of 3.25 gm or 5 gm dly or tds, 1-2 days / weeks
Senna glycoside (as Ca salts 12 mg)	Pursennid	2-4 tab nocte (max 6 tab dly)

severe episodes, and to be used at the lowest dose and for the shortest duration possible.

As for acute constipation in ambulatory patients, any laxative can be used, if these episodes are at intervals of several weeks. Low dose saline or glycerin laxatives, administered either orally or rectally, are effective.

For short term use, e.g. in inpatients, most of the available laxatives can be used, provided the patients do not have gastrointestinal problems that contraindicate their use.

In patients who are institutionalised or bedridden, the use of daily bulk forming agents should be the treatment of choice. On occasion, stimulant or saline laxatives, even lactulose, may be used to prevent faecal impaction. Mineral oil should be avoided in this group of patients as lipoid pneumonia secondary to aspiration has been reported.

In patients with long term laxative abuse, bulk forming laxatives should be commenced, and all stimulant laxatives withdrawn gradually. After re-establishment of satisfactory bowel movements, any occasional episodes of constipation can be treated with a small dose of saline laxative or glycerin suppository.

#### **OTHER TREATMENT OPTIONS FOR CONSTIPATION**

These include behaviour modification such as biofeedback and relaxation therapy. These can act as adjunct therapy, and have been reported to be of benefit to some patients.

Surgery such as total colectomy with ileo-rectal anastomosis is only considered for cases of

intractable constipation. The results are not always satisfactory, and troublesome side effects such as persistent diarrhoea and abdominal cramps make this treatment option a last resort.

#### **CONCLUSION**

Constipation is a common problem, and may be acute or chronic. In the management of a patient with constipation, possible underlying causes should be elucidated and treated. Laxatives may be used as an adjunct in these cases. In patients with no definable cause, laxatives should be used judiciously, so as to avoid untoward side effects, and prevent patient over-dependence on their use. In patients with chronic constipation, bulk forming laxatives are the safest, provided adequate fluid intake is maintained.

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# A FAMILY PHYSICIAN'S APPROACH TO GALL BLADDER DISEASE

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## INTRODUCTION

Gall bladder disease is not an uncommon condition seen in the primary health setting. It is estimated that about 10% of adults have gall stones. Females are affected twice more often than males. They can present in a variety of ways ranging from asymptomatic to acute abdomen. Many other gastrointestinal conditions can also present similarly. Radiological investigations are often needed to confirm the diagnosis.

## CLINICAL PRESENTATION

Gall bladder disease may be asymptomatic or manifested by recurrent pain. Asymptomatic patients are often discovered incidentally through X-rays or ultrasound investigations.

Patients with symptoms often present with recurrent bouts of biliary colic. This is believed to be related to the impaction of a gallstone in the cystic duct. Biliary colic is described as the sudden onset of colicky pain over the right hypochondrium or epigastric region. It is generally constant in nature and can last for hours. There may be radiation of pain to the tip of the shoulder, or other areas of the chest or abdomen. Intolerance of fatty foods is not specific to gall bladder disease; other gastrointestinal conditions can present with fatty food intolerance and dyspepsia.

Some patients can present with complications of gallstones. Acute cholecystitis causes severe

abdominal pain, nausea, vomiting and fever. Perforation and gangrene may occur. Other complications are related to the gallstone being lodged in the common bile duct. Obstructive jaundice and cholangitis are not uncommon in patients with gallstones. Pancreatitis is also known to be related to gallstones.

## DIAGNOSIS OF GALLSTONES

The occurrence of recurrent bouts of biliary colic provides strong clinical evidence of gallstones; fatty food intolerance and dyspepsia do not. The three main methods used to diagnose gall bladder disease are ultrasonography, nuclear scanning and oral cholecystography.

### Ultrasonography

Ultrasonography is very useful in the detection of stones and other anatomical abnormalities. The overall sensitivity of ultrasound is reported to be high for the detection of gallstones. Furthermore, it can also detect other non-biliary causes of abdominal pain e.g. liver and pancreatic diseases.

This is an extremely useful diagnostic tool for the family physician. It is non-invasive and is easily available. However the sensitivity of the ultrasound is dependent on the equipment used and the competence of the operator.

### Nuclear scanning

Nuclear scanning or cholescintigraphy utilises technetium-99m-labelled agents (HIDA, PIPIDA, DISIDA) to assess the patency of the cystic duct and the motility of the gall bladder. The isotope is taken up by the liver and excreted into the bile.

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Images are then taken after an hour. The gall bladder and the common bile duct are visualised within an hour in a normal person. Non-visualisation of the gall bladder after an hour is characteristic of cholecystitis (the common bile duct and duodenum remain visualised).

The HIDA scan is highly accurate in detecting acute cholecystitis. However the cost is much greater and little anatomical information is provided. Nuclear scanning is only available at Singapore General Hospital. It is therefore less useful for the family physician.

### **Oral Cholecystogram**

This has largely been replaced by ultrasound and scintigraphy. It is rarely done nowadays. Its usefulness is limited by practical considerations: a long wait for results, a higher prevalence of side effects (mainly gastrointestinal) and the need to expose the patient to ionising radiation.

## **MANAGEMENT OPTIONS**

The main therapeutic options available are surgery and stone dissolution. Extracorporeal gallstone lithotripsy and ERCP are sometimes used in certain patients in the treatment of gallstones.

### **Asymptomatic Stones**

There is no evidence that asymptomatic patients would benefit from surgery or stone dissolution. Prophylactic cholecystectomy is mainly done for children as most of them will develop symptoms. In the past, it was believed that diabetic patients would benefit from prophylactic cholecystectomy. However recent studies seem to suggest otherwise; most authorities do not recommend cholecystectomy in diabetic patients with asymptomatic gallstones.

### **Symptomatic Stones**

Symptomatic patients with recurrent bouts of biliary colic and confirmed gallstones should be advised to undergo elective cholecystectomy, provided they are reasonable surgical candidates. Patients who are poor surgical risks may be treated with stone dissolution therapy.

## **Surgery**

Surgery is still the main therapeutic option. Open cholecystectomy has been the main mode of treatment for gallstones for many years. However the use of laparoscopic surgery has recently been popular. The main disadvantage of open surgery includes prolonged pain after surgery, long hospitalisation and weeks of disability.

Laparoscopic cholecystectomy has been widely used since it was first performed in 1988. A laparoscope is inserted through a stab wound near the umbilicus and surgical instruments are inserted through several stab wounds in the upper abdomen. Patient selection is important. Medically unstable patients and patients with multiple abdominal surgery are not suitable candidates for laparoscopic surgery. A planned laparoscopic surgery can also be converted to open surgery when surgical conditions are found not favourable e.g. extensive scarring of the biliary system or abnormal anatomy.

The experience of the surgeon is also a very important consideration. In expert hands the rate of complications is comparable with that of open surgery. Laparoscopic surgery is certainly more expensive. However postoperative pain is greatly reduced and the patient is able to go back to work sooner.

The options and considerations should be discussed with the patient so that the patient is better able to make an informed decision. The referral to an experienced surgeon is also important.

### **Stone Dissolution Therapy**

Oral bile salts (Chenodiol and Ursodiol) have been used to dissolve cholesterol gallstones. Bile pigments stones which are more common among Asians are not dissolved by oral bile salts therapy. Hence it is only suitable for only a small minority of patients with cholesterol stones — those who refuse or are poor surgical risks. Furthermore, gallstones frequently recur after oral bile salts are stopped. Gastrointestinal side effects are also very common.

### **Extracorporeal Gallstone Lithotripsy**

This method involves the use of shock waves to fragment the gallstones. It requires a functioning

gall bladder to expel the stones. Fluoroscopy or ultrasonography is used during the procedure to focus the shock waves on the stones. This is useful in patients with small multiple (not more than four) stones and patients who are poor surgical risks.

#### ***Endoscopic Retrograde Cholangiopancreatography (ERCP)***

This is used mainly in the treatment of common bile duct stones. It has reduced the need for the exploration of the common bile duct during surgery. Stones present in the common bile duct are removed by first performing a sphincterotomy and then extracting the stones with a basket or a biliary balloon. Endoscopic laser lithotripsy can also be performed.

#### **THERAPEUTIC RECOMMENDATIONS**

Recurrent attacks of epigastric or right hypochondrium colic are highly suggestive of gall bladder disease; fatty food intolerance and dyspepsia are not.

Ultrasound is probably the most useful diagnostic tool for the family physician. Other investigations include nuclear scanning and oral cholecystogram.

Patients with asymptomatic gallstones can be managed expectantly. Surgery or stone dissolution therapy are not necessary.

Patients with history of recurrent attacks of biliary colic should be advised to undergo elective surgery, provided they are suitable surgical candidates.

Laparoscopic surgery is becoming more common and more preferred. Reduced postoperative pain and shorter hospital stay are advantages. However it is more costly. Experience of the surgeon is also important.

Oral bile salts are only useful for cholesterol stones. Only a minority of patients will benefit from this therapy. Recurrence of stones often occurs when treatment is stopped.

Lithotripsy is one option for the surgically unfit. Results are best for small stones and less than four in number.

ERCP is useful for common bile duct stones.

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## COUNSELLING IN FAMILY PRACTICE

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### INTRODUCTION

Few people would dispute that doctors have a very unique place in the personal lives of the people they serve. They get to hear all kinds of complaints regarding physical ailments, sometimes described in rather intimate manner. Along with listening to details about physical problems, doctors get to hear about other personal and family problems as well.

This rather personal aspect of medical practice offers a counselling role for doctors in their treatment of physical ill. Patients would easily share problems of a psychological and relational nature.

It would not be far wrong to suggest that long before psychological counsellors came on the scene, doctors were regarded as confidants and had to provide counselling to patients besides giving medical prescriptions.

This tradition is still continued today when more physical ailments are known to be related to the emotional and psychological dimensions of life. Patients do confide in doctors. Those doctors who do take a little time to inquire and listen, will certainly get to hear of other stresses in their patients' lives.

### A PSYCHOLOGICAL PERSPECTIVE TO MEDICAL PROBLEMS

Those who provide psychological counselling will admit that a person cannot be viewed from a reductionistic perspective. This view of people

sees parts of them in separate entities. The physical is separate from the emotional, the mental from the physical.

Yet, we know that people are wholes, not parts alone. Each dimension of human experience is connected to the other. One part affects the other and the whole is affected by each part. In essence, there is no mind-body dichotomy. A person is an integrated being comprising all the dimensions of human existence.

This makes it almost inevitable that a person's medical symptoms should be viewed from a holistic perspective. The biological system is intimately related to the psychological system.

In addition, medical practice has also begun to incorporate the view that these two systems are connected to a larger one, the family system. In *Principles of Family Systems in Family Medicine*<sup>1</sup>, one is reminded that patients who seek medical treatment have families. They are not mere individuals isolated from their families and other social relationships.

This systemic view has to be acknowledged as a person's physical symptoms do affect and are affected by relationships in his life. One of the more obvious observations relates to the way illness in children tends to be connected to the psychological stability of the parents and quality of marital and family relationships. It is not accounted for by physical factors, such as hygiene or environment, alone.

A recent article in the *Straits Times*<sup>2</sup> reported that parents have as much a part to play in the illness of children as any other factors. Their reactions and anxiety add stress to children, which can influence their physical wellbeing.

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## **COUNSELLING ROLE OF FAMILY PRACTITIONERS**

If we acknowledge the place of doctors in a patient's life, it is even more important to integrate the psychological role of the doctor in family practice. The family practitioner must view his patient as an entity related to his family and other social systems. He is not just a biological being.

This emphasizes the counselling role of the family practitioner. There is a place for listening not just to physical symptoms, but to other aspects of the person's life. In terms of treatment, medication alone will not be sufficient. The doctor needs to consider offering guidance and counsel as well. Sometimes he may even need to spend a little time engaging the patient in a conversation without any medical prescription.

In order to enhance this counselling role in family practice, it may help to clarify the orientation of the practitioner. He may need to approach his practice from an integrated perspective.

This means thinking of the patient's symptoms in terms of their connections to other aspects of his life. While it is true that some symptoms are purely biological in nature, all symptoms do affect the patient's psychological state. His family's reactions to his symptom may also increase his anxiety, which in turn affects the condition of the symptom.

The family practitioner may also need to appreciate that patients do have difficulties in talking with family members or anyone else about not only their medical problems, but other problems of life as well.

It has been my experience hearing patients talk about their difficulties in letting family members know about their physical ailments for fear that they become unduly worried. They end up worrying about their family's reactions. Some problems are somewhat embarrassing and are taboo to family members.

For whatever reasons, patients do indicate their need to talk about their feelings, share information about themselves and talk about different

disturbing aspects of their lives. They need a listening ear from someone they consider capable of providing confidentiality.

Furthermore, patients do testify to experiencing physical wellbeing when they are relieved of some emotional or psychological stress in their lives. They find psychological healing a strong complement to their medical treatment. In some situations, they may even dispense with the need for medication.

## **COUNSELLING SKILLS FOR FAMILY PRACTITIONERS**

While it is true that family practitioners are not psychiatrists nor psychotherapists, they will need to incorporate counselling skills into their practice. Such skills are often introduced at some level of medical training. Unfortunately, there is a tendency in medical training to focus more on the diagnostic than the therapeutic.

Beginning with the way the practitioner thinks about his patients, appropriate counselling skills can then be acquired. This involves being aware of the levels of skills available and using them for contacts with patients in the consultation room.

In surveying the field of counselling and psychotherapy, there are more and more approaches and techniques being generated. No more is it possible merely to identify a few mainstreams of therapy. Much has developed since the days of psychoanalysis.

This being the case, it is proposed that the family practitioner be familiar with a generic approach to counselling. This is an approach which identifies skills for conducting therapeutic conversations with patients without necessarily getting into complex psychotherapeutic procedures or techniques.

### **Generic Counselling Skills**

Counselling skills can be identified in terms of interpersonal and intervention skills. Interpersonal skills refer to the way a counsellor engages a person to talk. This includes listening and responding skills which are basic to any counselling

situation. Intervention skills refer to the way a patient is helped with problem-solving.

### **Interpersonal skills**

There are two aspects to these skills. The first has to do with the non-verbal component of interpersonal communication, while the second refers to verbal skills.

The *non-verbal* refers to the way the doctor communicates attentiveness and concern through his body language and vocal qualities. Body language includes the way he sits, the proximity to the patient, gestures and posture. It has been observed that it helps to talk to patients by:

- leaning forward
- facing the patient squarely
- making eye contact
- adopting an open posture
- being relaxed.

Such body language could be matched by appropriate vocal qualities such as moderating tone, pitch, volume and speed. It seems to help when a doctor speaks to his patient in a calm, measured and soft voice.

While it is recommended that these non-verbal aspects of communication are demonstrated in talking with patients, the doctor needs to be sensitive to cultural differences and expectations of patients. For example, constant eye contact may not be appropriate with some ethnic groups.

The *verbal* skills provide the doctor with a range of responses to facilitate conversation flow. These can be summarised as follows:

*Paraphrasing* - this refers to a repetition of the patient's main ideas, words and thoughts in the doctor's own words. It is a way of telling the patient that he is heard and there is a desire to hear more.

*Reflecting feelings* - this is somewhat related to paraphrasing except that the focus is solely on the affective state of the patient. It is a way of communicating empathy and telling the patient he is understood.

*Summarising* - this is an extended paraphrase, which helps review the content of the conversation, giving the doctor a chance to be told if what he hears is what has been said.

*Clarifying* - people do not always say what they mean nor mean what they say. Just asking the patient what is meant by what he says serves to bring out the essence of the message intended.

*Open questioning* - such questions cannot be answered with a "yes" or "no" response. It begins with words like "what", "why", "how" and helps to draw the patient to talk a little more.

Each of these skills can be used to get the patient talking in such a way that he feels he is given attention, being understood and appreciated. This itself can be a therapeutic experience.

### **Intervention skills**

In counselling, a simple approach has been developed for problem-solving<sup>3</sup>. This is a four-step approach incorporating ideas from the briefer schools of psychotherapy. It is focused on helping the patient identify his problem, reflect on his attempted solutions and work out plans to generate solutions or make changes.

This approach takes the form of the acronym, PADI:

*Problem definition* - this refers to helping the patient clarify what his problem is.

*Attempted solutions* - the patient is then helped to think about the way he has tried to deal with his problem. He should be assisted to consider solutions that have been helpful and to do more to deal with his problem.

*Desired changes* - this refers to clarifying what the patient wants to do about his problem and the changes he is prepared to make. The doctor will need to help him aim for what is achievable.

*Intervention plan* - this involves helping the patient think of possible solutions and new ways of dealing with his problem.



Such an approach to counselling keeps the focus on problems presented and seeks to help patients generate solutions. It is not focused on analysing problems, finding causes or giving glib advice. Rather, it is concerned with helping patients help themselves. The task of the doctor is to facilitate, not prescribe.

#### **APPLICATION OF COUNSELLING SKILLS TO FAMILY PRACTICE**

Most doctors would agree that time is a precious commodity for them. With pressure from patients, doctors may find it difficult to spend too much time listening to and counselling patients.

This dilemma can be resolved if the doctor was to approach his practice with the view that patients are people who possibly have problems besides physical ailments. They are willing to confide in doctors in the privacy of the consulting room.

The problem-solving approach is offered as a brief intervention tool for doctors to provide a

brief moment to inquire into what is bothering the patient and help him think of solutions. This is to be done in a facilitative manner using appropriate non-verbal and verbal responses.

Of course it would also be useful for doctors to undergo training to be equipped with counselling skills. This will not necessarily reduce the medical treatment which the doctor is trained to provide. It may even enhance the doctor's image as one who cares beyond the prescriptive role of dispensing advice and medication. The family practitioner will be someone who is also concerned and attentive to the total dimension of the patient's life.

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## 44 CONSECUTIVE URINE BACTERIAL CULTURE AND SENSITIVITY TESTS IN A GENERAL PRACTICE

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### SUMMARY

The purpose of the study is to describe the results of urine bacterial culture and sensitivity testing (Urine C & S) done for patients at a general practice with the view of describing the sensitivity pattern of such bacteria isolated, as well as describing the accuracy of a particular dipstick test for the presumptive diagnosis of urinary tract infection (UTI).

Patients presenting at a general practice with classical symptoms or else non-specific symptoms of urinary tract infection had their urine tested with a dipstick test for presumptive diagnosis of UTI, and those positive, 44 consecutive cases in all, had the sample tested for bacterial-culture and sensitivity.

Clinically significant (urine culture positive) UTI was 6 times more common among females than males. Those presenting with classical UTI symptoms (77.8%) had higher percentage of urine culture positive than those with non-specific symptoms (52.2%) but the difference was not significant statistically (Chi-squared with Yate's correction).

The presence of erythrocytes alone appeared to be a poor indication of UTI, but the presence of leucocytes appeared to be strong presumptive evidence of UTI, even at smaller concentration in the urine.

The commonest causative organism isolated, by far, was *E. coli* (69.0%). Other causative bacteria isolated were Coagulase positive *Staphylococcus*, Coagulase negative *Staphylococcus*, non-haemolytic *Streptococcus*, beta-haemolytic *Streptococcus*, *Acinetobacter*, *Proteus*, *Klebsiella* and *Enterobacter*.

The isolates showed between 41.3% and 50% total sensitivity to common antibiotics such as ampicillin, tetracycline, co-trimoxazole and ampiclox, while newer-generation antibiotics such as augmentin, cefaclor, ofloxacin, pefloxacin and cefuroxime had 64.2% to 82.1% total sensitivity. Only Rocephin (ceftriaxone) showed 100% total sensitivity *in-vitro*.

Treatment of UTI in a general practice setting is discussed, as are preventive measures.

### Keywords:

Urinary tract infection, urine cytology, antibiotic sensitivity, general practice.

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## INTRODUCTION

I spend slightly less than three-quarters of my practice time involved in general practice at a single-practice clinic in Jalan Barat, Petaling Jaya. My patients comprise almost entirely of office executives, clerical workers, general workers and college students. The patients comprise a fair proportion of males and females (M:F = 1.4:1). Bacterial infection of the urinary tract is seen commonly enough at my clinic.

## AIM

The aim of this article is to describe the results of urine bacterial culture and sensitivity testing (Urine C & S) done for patients at a general practice, 44 consecutive cases in all, requiring such testing, with the view of describing the sensitivity pattern of such bacteria isolated, as well as describing the accuracy of a particular dipstick test for the presumptive diagnosis of UTI.

## METHOD

Between mid July 1993 and mid February 1994, all patients presenting with classical symptoms of urinary tract infection (UTI) such as dysuria, frequency of micturition, nocturia and suprapubic pain, or else presenting with non-specific symptoms frequently associated with UTI such as fever, chills, backache, non-pregnancy secondary amenorrhoea, smelly urine, depressive moods and characteristic skin rashes, occurring either singularly or in combination, had their urine tested at the clinic using the Combur-9 Test (Boehringer Mannheim) for leucocytes, erythrocytes and nitrites. None of the patients gave a history of having had their complaints treated with a prior course of antibiotics elsewhere.

Urine samples (inclusive of those at routine medical check-ups) testing positive, for one or any combination of the above, were sent to our regular private pathology laboratories for Urine C & S.

The patients were given sterile bottles for collection of urine samples and advised to provide mid-stream samples. The nature of general practice and clinic conditions, in most circumstances,

preclude the possibility of suprapubic bladder-taps or supervised collection of urine samples. The patients, however, were instructed on the correct technique of collecting a mid-stream urine sample.

The manufacturers of the Combur-9 Test, Boehringer Mannheim, assure a fairly high sensitivity and specificity of the test, which essentially requires the test strip to be dipped into the sample of urine and read at 60-120 seconds for leucocytes, nitrites, pH, protein, glucose, ketones, bilirubin, urobilinogen and erythrocyte / haemoglobin.

They also caution on the possibility of false-positive readings for leucocytes that may be caused by formaldehyde (used as stabiliser) and that the leucocyte reaction colour may be intensified by the presence of bilirubin or nitrofurantoin. In the case of erythrocytes, they caution that the presence of strongly oxidising disinfectants in the specimen collection vessel may cause false-positive readings.

There do not appear to be possibilities for false-negative readings for both leucocytes and erythrocytes.

In considering the possibility of false-positive readings for leucocytes and erythrocytes using the Combur-9 Test in this study, we took the necessary precautions. Neither did there appear to be any situations arising that may cause such false-positive readings.

## RESULTS

Of the 44 samples of urine on which Urine C & S was done, 8 (18.2%) were from male patients while the other 36 (81.8%) were from female patients. Table 1 shows Urine Bacterial Culture in relation to patient's sex. Although there appears to be a greater proportion of clinically significant bacterial growth among males (75% cf 63.9%), indicating a greater predictability of the Combur-9 Test in UTI's among males than females, the insufficient number of males does not allow for statistical testing for significance of this difference. Three of the males were diabetics, or had diabetogenic blood glucose levels, while another

one recently had surgical removal of ureteric calculus.

**Table 1: Urine Bacterial Culture in Relation to Patient's Sex**

	Female	Male	Total
Pure or Mixed Growth indicating UTI	23 (63.9%)	6 (75.0%)	29
< 10 <sup>3</sup> org/ml urine	10 (27.8%)	0 (0%)	10
No growth	3 (8.3%)	2 (25.0%)	5
TOTAL	36 (100%)	8 (100%)	44

Table 2 shows Urine Bacterial Culture in relation to urine cytology. While the presence of erythrocytes alone appears to be a poor indicator of UTI, the presence of leucocytes as tested by the Combur-9 Test appears to be strong presumptive evidence for UTI. Although heavy pyuria seems to be the norm, even smaller concentrations of leucocytes in the urine appear to be sufficient evidence. Mention must be made of one case which tested negative for leucocytes but was weakly positive for erythrocytes and strongly positive for nitrites and grew a heavy growth of *Escherichia coli*. This particular strain of *E coli* was reported resistant to antibiotics such as ampicillin, co-trimoxazole, norfloxacin, nalidixic acid, nitrofurantoin, unasyn, urotractin, ofloxacin and pefloxacin.

**Table 2: Urine Bacterial Culture in Relation to Urine Cytology**

	wbc+ve <25 / ul	wbc+ve >25 / ul	rbc+ve alone	Total
Pure or Mixed Growth indicating UTI	3 (100%)	24 (68.6%)	2 (40.0%)	29
< 10 <sup>3</sup> org/ml urine	0 (0%)	9 (25.7%)	1 (20.0%)	10
No growth	0 (0%)	3 (6.7%)	2 (40.0%)	5
TOTAL	3 (100%)	36 (100%)	5 (100%)	44

Table 3 shows Urine Bacterial Culture in relation to symptoms. A high percentage (77.8%) of patients presenting with classical symptoms of UTI had their urine growing clinically significant bacteriuria, but patients presenting with non-specific symptoms and testing positive with the Combur-9 Test showed a good proportion (52.2%) of clinically significant bacteriuria, as did those who were Combur-9 positive for UTI during routine medical examination. The difference of percentage in clinically significant bacteriuria was statistically not significant (Chi-squared with Yate's correction).

The commonest causative organism isolated, by far, was *E coli* (69.0%). Other causative bacteria isolated were *Coagulase positive Staphylococcus*, *Coagulase negative Staphylococcus*, *non-haemolytic Streptococcus*, *beta-haemolytic Streptococcus*, *Acinetobacter*, *Proteus*, *Klebsiella* and *Enterobacter*. Only 4 specimens grew mixed growth, no more than 2 species of bacteria each mixture. It is generally considered that a mixed growth of 3 or more types of bacteria indicates contamination<sup>1</sup>. It is reported that mixed organisms account for about 3% of UTI<sup>3</sup>.

**Table 3: Urine Bacterial Culture in Relation to Symptoms**

	Classical UTI symptoms	Non-specific symptoms	Routine urine testing	Total
Pure or Mixed Growth indicating UTI	14 (77.8%)	12 (52.2%)	3 (100%)	29
< 10 <sup>3</sup> org/ml urine	3 (16.7%)	7 (30.4%)	0 (0%)	10
No growth	1 (5.5%)	4 (17.4%)	0 (0%)	5
TOTAL	18 (100%)	23 (100%)	3 (100%)	44

Table 4 shows the pattern of Antibiotic Sensitivity of the causative bacteria isolated.



**Table 4: In-Vitro Antibiotic Sensitivity of Caustive Bacteria Isolated**

	Escher Coli	Non-haem Strep	Coag+ve Staph	Coag-ve Staph	Acineto- bacter	Proteus spp	B-haem Strep	Entero- bacter	Total
	R I S	R I S	R I S	R I S	R I S	R I S	R I S	R I S	R I S
Amoxil	5 3 4 (33.3)	1 1 0 (0)					1 (100)		6 4 5 (33.3)
Ampicillin	7 5 8 (40)	1 1 0 (0)	1 0 1 (50)	0 0 1 (100)	0 1 0 (0)	1 0 0 (0)	0 0 1 (100)	0 0 1 (100)	10 7 12 (41.3)
Ampiclox	5 0 4 (44.4)					0 0 1 (100)	0 0 1 (100)		5 0 6 (54.5)
Augmentin	0 2 5 (71.4)	0 1 1 (50)	0 1 1 (50)	0 0 1 (100)	0 1 0 (0)			0 0 1 (100)	0 5 9 (64.2)
Bactrim	7 1 12 (60)	2 0 0 (0)	2 0 0 (0)	1 0 0 (0)	1 0 0 (0)	1 0 0 (0)	1 0 0 (0)		15 1 12 (42.8)
Ceporax	1 2 3 (50)	2 0 0 (0)	1 0 1 (50)	0 0 1 (100)	0 0 1 (100)	0 1 0 (0)	0 0 1 (100)	0 0 1 (100)	4 3 8 (53.5)
Cefaclor	2 1 10 (76.9)						0 0 1 (100)		2 1 11 (78.5)
Gentamycin	0 2 12 (85.7)		1 0 0 (0)						1 2 12 (80.0)
Lexinor	1 0 5 (83.3)	0 1 1 (50)	1 1 0 (0)	0 0 1 (100)	0 1 0 (0)	0 0 1 (100)	0 0 1 (100)	0 0 1 (100)	2 3 10 (66.6)
Nalid Acid	1 0 4 (80)				0 1 0 (0)	0 0 1 (100)		0 0 1 (100)	1 1 6 (75.0)
Pefloxacin	1 1 18 (90)	0 1 1 (50)	1 1 0 (0)	0 0 1 (100)	1 0 0 (0)	0 0 1 (100)		0 0 1 (100)	3 3 22 (78.5)
Piperacil	1 0 3 (75)	0 1 1 (50)	1 0 1 (50)	0 0 1 (100)	0 0 1 (100)		0 0 1 (100)	0 0 1 (100)	2 1 9 (75.0)
Rocephine	0 0 6 (100)		0 0 1 (100)	0 0 1 (100)		0 0 1 (100)	0 0 1 (100)	0 0 1 (100)	0 0 11 (100)
Tarivid	1 1 17 (89.4)	0 1 1 (50)	1 0 1 (50)	0 0 1 (100)	1 0 0 (0)	0 0 1 (100)	0 0 1 (100)	0 0 1 (100)	3 2 23 (82.1)
Tetra	6 1 7 (50)								6 1 7 (50)
Unasyn	3 1 2 (33.3)	1 1 0 (0)	0 1 1 (50)	0 0 1 (100)	0 1 0 (0)	1 0 0 (0)	0 0 1 (100)	0 0 1 (100)	5 4 6 (40)
Urotractin	1 0 5 (83.3)		0 1 0 (0)		0 1 0 (0)			0 0 1 (100)	1 2 6 (66.6)
Zinnat	0 3 9 (75)		0 0 1 (100)					0 0 1 (100)	0 3 11 (78.5)
Total	42 23 134	7 8 5	9 5 8	1 0 9	3 6 2	3 1 6	1 0 10	0 0 12	66 43 186

R = Resistant    I = Intermediate    S = Sensitive    ( ) - Percentage Sensitive

## DISCUSSION

Bacterial infections of the urinary tract are common. They are reported to occur about ten times more frequently in the female than in the male, except in the neonatal period when the incidence is equal in both sexes<sup>1</sup>. This study, however, shows that it is only about four to five times more frequent (six times more frequent if corrected for ratio of male: female patients seen at the clinic).

The majority of UTIs are caused by gram-negative bacteria. While up to 85% of UTIs are reported to be caused by *E coli*<sup>1</sup>, this study shows only 69%.

It is not certain as to what percentage of patients at general practices locally are seen for urinary tract infections specifically. Previous studies show that about 5% of patients seen in general practice are for genitourinary infections inclusive of UTI, STD and vaginal discharge<sup>2</sup>. This present study shows that about 1.5% of all patients visits at our general practice are for UTI. The changing pattern may partly be due to the changing pattern of general practice and first-line management of patients as a whole, where patients having classical symptoms of UTI may present directly at urologists' or nephrologists' clinics, instead of presenting first at general practices.

UTIs are commoner and often recurrent in women for very obvious reasons, viz:<sup>3</sup>

- a. the short urethra compared to the male,
- b. the skin condition of the perineal area,
- c. the nature of sexual intercourse,
- d. the proximity of the anal area, and
- e. pregnancy and childbirth.

Recurrent urinary tract infections in women may be prevented by taking adequate preventive measures such as:<sup>3</sup>

- a. passing urine within 15 minutes of sexual intercourse,
- b. prolonging the period of foreplay to ensure adequate lubrication,
- c. drinking enough fluids to pass more urine so as to reduce urinary stasis at night,

- d. wiping (for those who wipe) from front to back to avoid introduction of perianal bacteria into the urethral opening, and
- e. antibiotic prophylaxis.

The danger from any untreated lower urinary tract infection is that the infection may spread upwards in the urinary tract to infect the ureters and the kidneys, or spread via the blood to other organs in the body, or (rarely) cause serious septicaemia. Chronic pyelonephritis leads to chronic renal failure. Most dialysis and renal transplantation centres have found that chronic pyelonephritis accounts for about 10-15% of patients with chronic renal failure<sup>1</sup>.

Treatment at general practices is often dictated by cost, as impressed upon practitioners by the patients' employers. If we are to use Table 4 as a guide for the treatment of UTI's in general practice, we would be inclined to choose co-trimoxazole (Bactrim, Septrin) or a tetracycline as first choice for presumptive treatment until Urine C & S results are received.

The process of Urine C & S takes 48 hours, 24 hours for the first incubation and another 24 hours for the subsequent incubation of the sensitivity test. However, taking into consideration the time required for collection of sample and despatch of results, most private laboratories in Kuala Lumpur and Petaling Jaya require about four days to provide results of Urine C & S. The treatment regimen, naturally, would require reconsideration once the Urine C & S results are received.

Table 4 provides a guideline as to the efficacy of common and new generation antibiotics, inclusive of new generation penicillins, quinolones and cephalosporins that may be used in the treatment of UTIs in general practice.

The following description of cost (doctor's cost) of a course of one of the new generation antibiotics provides additional guidelines on the choice of such new generation antibiotics, in cases of resistance to the older ones such as co-trimoxazole, tetracycline, ampicillin, and ampiclox.

- |   |             |
|---|-------------|
| a. cefuroxime (Zinnat)<br>125 mg bd x 10 days   | = RM 23.00  |
| b. ofloxacin (Tarivid)<br>100 mg tds x 10 days  | = RM 36.00  |
| c. pefloxacin (Peflacin)<br>400 mg bd x 10 days | = RM 314.00 |
| d. norfloxacin (Lexinor)<br>200 mg bd x 10 days | = RM 40.00  |
| e. cefaclor (Distaclor)<br>250 mg tds x 10 days | = RM 79.00  |
| f. Augmentin<br>1 tab tds x 10 days             | = RM 67.00  |

Shorter courses of antimicrobial therapy may be considered as advocated by some<sup>4</sup> by weighing the cost of repeat Urine C & S against the cost of a standard duration treatment. The standard duration of treatment is 10-14 days<sup>3</sup>.

## CONCLUSION

Urinary tract infections are commonly enough seen in general practice. It is more common among women than among men. The commonest causative bacteria is *E coli*. The Combur-9 Test manufactured by Boehringer-Mannheim appears to have good predictive value in the presumptive diagnosis of UTI, even at lower urine concentrations of leucocytes.

While the classical UTI symptoms of dysuria, frequency of micturition, nocturia and suprapubic pain appear more likely to be related to bacteriuria and UTI, non-specific symptoms of UTI such as fever, chills, backache, bodyache, amenorrhoea, smelly urine, depressive moods and skin rashes, occurring either singly or in combination should not be ignored and a diagnosis of UTI should be vigorously sought and investigated for. This is particularly so because of the serious nature of the possible complications of UTI.

The treatment of UTIs would very much be determined by efficacy and cost of the antimicrobials at choice.

The emergence of resistant strains of common urinary tract pathogens to old, new and very new generation antibiotics should be given serious attention.

## ACKNOWLEDGEMENT

I wish to thank Dr Adam Chow, Dr Navinbhai Patel, Dr Prasad Menon and Ms SP Yip, Physician Office Product Executive, Boehringer Mannheim for their valuable comments and advice.

I wish to state here that the purpose of my including names and brands and manufacturers of medicine and test kits mentioned in this article is not to endorse any such products but to describe a certain medicine or test kit, among a choice of various types, which were particularly used in this study.

I wish to thank Ms Soon Siew Eng for painstakingly typing the manuscript.

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## FAMILY PHYSICIANS ON FAMILY VALUES

### A Survey of Family Physicians' Opinions

*C B Soh, L G Goh, S U Wong, K H Lee*

#### INTRODUCTION

The College of Family Physicians Singapore is in full agreement with the objectives of the Committee on the Family. We feel that it is very important for good family values to be identified and propagated in our society.

Members of our college live and practise in the community. The practice of family medicine requires the doctor to seek an understanding of the patient's family background and how it affects the patient and his illness. In our daily work, family physicians are immersed in the milieu of our patient's varied family situations. The doctor frequently becomes part of the system in which the individual and his family interacts.

Family medicine as a discipline has always emphasised the importance of a sound and functional family structure. It is well recognised that dysfunctional families adversely affect the health of their members. Children growing up in unhealthy families suffer the consequences throughout their lives. Recovery from illnesses, especially chronic disabling diseases, requires a robust and supportive family.

Therefore having a functional family is as important as adopting a healthy lifestyle in maintaining the health of the individual.

#### FAMILY VALUES, STRUCTURE AND FUNCTION

##### Importance of the Family

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*Prepared by members of  
The Research Committee,  
College of Family Physicians Singapore*

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The family is the basic unit of society. Families are the basic building blocks of a nation.

The family is also the immediate context in which a person lives and functions. It is therefore the most important context from which individual health is derived and supported.

We frequently speak of families as being dysfunctional. In order to understand dysfunction, we must first understand function. The bottom line in assessing the effectiveness of a family is to look at how well it performs its functions.

A family is a social unit. Like all social units it can be effective or ineffective. This depends on its members, how they are organised and how they relate to one another (family structure), and also on the characteristics of the organisation (family values).

#### Family Functions

There are basically five functions.

##### 1. *Provide support and protection*

Members of a family support and protect one another. This support includes physical and financial support. However the most vital element is the emotional support. While many can obtain physical and financial support outside the family system, none can obtain the almost limitless emotional energy of a well-knit family.

##### 2. *Autonomy and identity*

A family provides the individual with a sense of identity and continuity. It provides a reference point in a person's social universe. The emphasis of family names and traditions is a manifestation of this function. While providing the individual with an identity, the family also provides a unique role for the



member is the family. Each person therefore also has a unique personhood that extends from the family in relation to the greater social system at large.

### 3. *Rules for living*

The family is the first social unit that an individual encounters. Each family has its own rules of behaviour. This is unwritten and is reached by informal decision making. It is largely consistent with the society in which the family exists and is appropriate in the cultural context. In a way, it prepares the individual to function harmoniously in the society eventually. We may view juvenile delinquency as a result of family failure to inculcate the necessary rules of living. Some parents may be too confused to be able to define rules. This usually is a result of a loss of faith in one's cultural heritage. This has traditionally been the source from which such rules are derived. The rapid and far reaching growth of the mass media has eroded and in many cases taken over this influence. The result therefore ranges from a family with culturally inappropriate rules to one that has a complete absence of rules. The emphasis on reasoning and rationalisation over discipline results in children who cannot cope with rules when they enter society. They cannot understand the reality of a harsh world where failure to conform to norms of behaviour can

frequently result in physical harm and painful punishment.

### 4. *Adaptation to change*

The environment in which the family exists is not static. For example the family may be transplanted into another society as a result of emigration. There may be social upheavals. Even minor changes such as an economic down-turn could exert significant stress on the family. The family itself is also not static. New members may be added by birth or marriage. Old members may leave as a result of death or work requirements. The family itself is constantly changing in the family life cycle. An important function of the family is to adapt to both internal and external changes.

### 5. *Communication*

Communication is central to all other functions. Communication includes verbal, non-verbal and perhaps even 'extra-sensory' forms which an outsider is usually unable to perceive.

These five functions occurs simultaneously and at times may seem to be at odds with one another. The concept of equilibrium and balance is important. An excessive emphasis on one function may compromise another and result in a dysfunctional state. This is illustrated in Fig 1.

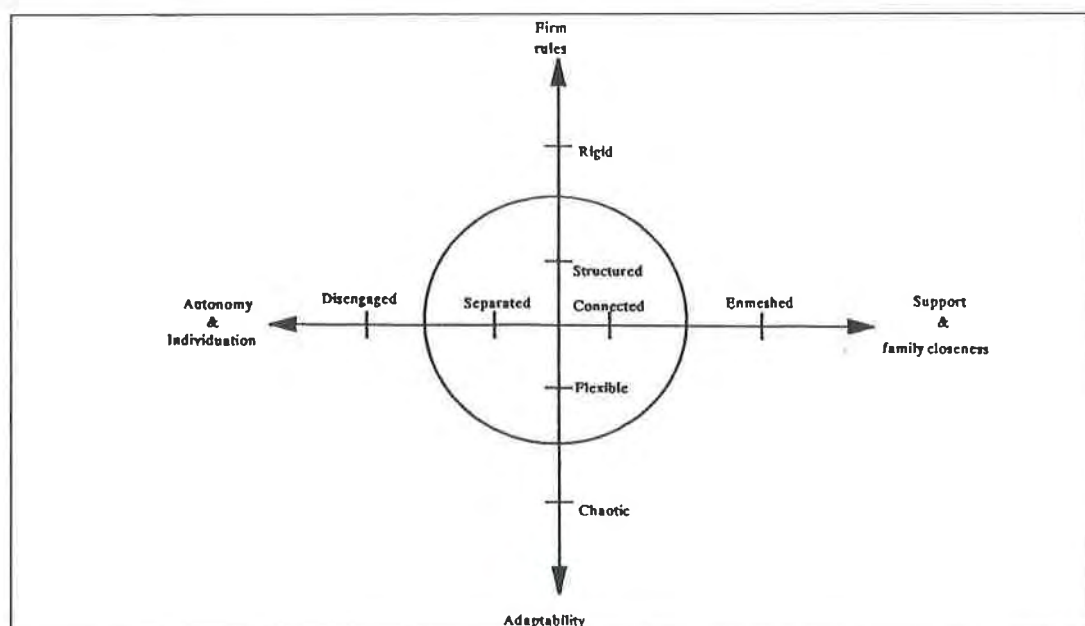


Fig. 1: *Family Functions in Balance*

## Family Structure

A family is made up of members related to one another. The biological relationships can usually be easily defined. However the complex emotional relationships are difficult to study. The biological relationship can be visualised in the form of a genogram (Fig 2). It is best to view the family as a relatively fixed set of biological relationships held together or kept apart by multiple and intertwining relationships. The variety of interactions are shown as bold arrows in Fig 2.

## Family Values

Family values may be looked upon as desirable family characteristics that would result in optional functioning of the family.

Some values are universal and timeless.

Effective families have to adapt to the society that they exist in. It is therefore inevitable that the aspirations of the society will define certain values that the family should have. As such, some values are determined by culture.

As societies change with time, some values may therefore reflect this change.

## THE SURVEY

A survey was carried out by the Research Committee of the College to study the opinions of our members on family values, in the hope that the findings from this study would assist the Committee on the Family in its deliberations.

A postal survey was carried out in the month of October 1993. College members were invited to respond to a series of statements on family values. They were asked to score the desirability of the values. They were also asked to assess the level at which the stated value existed in his community.

A total of 30 statements on family values were selected for study. Respondents were asked to grade their attitude towards them. Under the desirability column they were asked to state their agreement on a scale from 'strongly disagree' to 'strongly agree'. On the perception column, they were asked to state their perception of the value's existence on a scale of 'definitely absent' to 'definitely present'. A scale ranging from +2 to -2 was used.

The 30 statements are shown in Table 1.

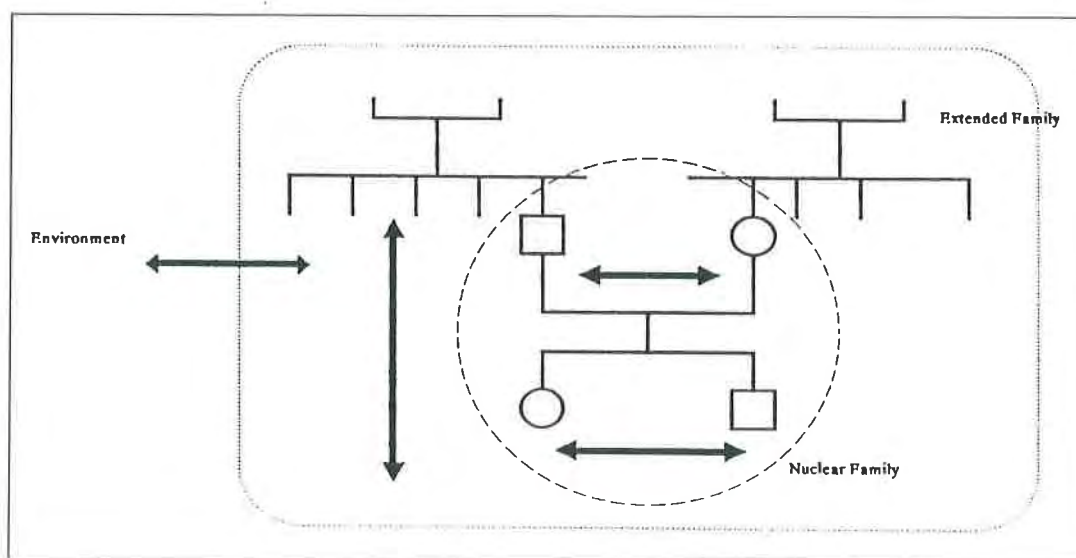


Fig. 2: The Family Structure

**Table 1: Survey Statements on Family Values**

<p><b>On Communication and Trust</b></p> <ol style="list-style-type: none"> <li>1. Each family member should make it a point to communicate effectively with one another.</li> <li>2. Children should be honest (and open) with parents.</li> <li>3. Family members should trust one another.</li> <li>4. Family members should be ready to admit to problems and seek help for them when necessary.</li> <li>5. Adults should be able to admit their mistakes to their children.</li> <li>6. When family members are angry at each other they should let the others know.</li> <li>7. Family members should know how they each feel about most things.</li> <li>8. It is all right for a member of the family to cry openly when sad or upset.</li> </ol>
<p><b>On sharing and togetherness</b></p> <ol style="list-style-type: none"> <li>9. Family members should share time together regularly.</li> <li>10. Family members should enjoy traditions (holidays, gatherings, rituals and ceremonies) together.</li> <li>11. Family members should share a religious belief.</li> <li>12. Family members should share their deepest thoughts with one another.</li> <li>13. A family should maintain close ties with relatives (especially grandparents).</li> <li>14. A family should eat together at least once a day.</li> <li>15. A family should do something together regularly.</li> <li>16. All family members should share in doing the household chores.</li> </ol>
<p><b>On respect, equality and authority</b></p> <ol style="list-style-type: none"> <li>17. Family members should respect one another.</li> <li>18. Children should not address their parents by their names.</li> <li>19. Family members should respect each other's privacy.</li> <li>20. There should be a clear line of authority within the family.</li> <li>21. The woman should play an equally important role as the man in bringing up the family.</li> <li>22. Older children should not have more privileges than younger ones.</li> <li>23. Boys should not have more privileges than girls.</li> </ol>
<p><b>On responsibilities</b></p> <ol style="list-style-type: none"> <li>24. Each family member should take responsibility for his / her actions.</li> <li>25. Parents should make it their responsibility to inculcate morality and discipline in their children.</li> <li>26. Each family member should do the job that he or she is supposed to do.</li> <li>27. Children should support parents in their twilight years.</li> <li>28. Parents should provide for the material and emotional needs of their children.</li> </ol>
<p><b>On family integrity</b></p> <ol style="list-style-type: none"> <li>29. The traditional family structure should be preserved.</li> <li>30. Every effort should be made to resolve marital conflicts and divorce should be a last resort.</li> </ol>

## RESULTS AND COMMENTS

### Characteristics of Study Population

A total of 610 questionnaires were sent to local members of the College of Family Physicians Singapore. 151(24.8%) returns were received. 122(20.0%) included their personal particulars for analysis. 29 were anonymous returns that opted not to include their particulars in the reply.

A summary of study population characteristics is shown in Table 2.

**Table 2: Characteristics of the Study Population**

Variable	Mean	Std Dev	Range	Min.	Max.
Age	42.59	10.67	41.00	27	68
No. of children	2.09	1.16	5.00	0	5
Age of oldest child	12.06	10.54	37.00	0	37
Years since Graduation	17.74	9.79	39.00	3	42

For those who included their particulars for analysis, the majority were Christians (59.0%), followed by Free-thinkers (16.4%), Roman Catholics (11.5%), Buddhists (6.6%), Aethists (2.5%), Muslims (1.6%) and Hindus (1.6%).

Of the respondents, 93% were Chinese, 5.8% Indians and 0.8% Malays. The majority of the respondents were married (93%), the remainder were single. The male:female ratio was 1.8:1.

**Table 3: The Ten Values Rated as Most Desirable**

Statement Number	Mean	Std. Dev.	Skewness
25	1.87	0.36	-2.62
01	1.77	0.44	-1.52
09	1.76	0.54	-3.25
30	1.75	0.57	-3.06
18	1.75	0.57	-2.60
17	1.74	0.50	-2.08
28	1.70	0.49	-1.20
02	1.68	0.55	-1.76
03	1.68	0.55	-1.74
21	1.67	0.64	-2.35

**Table 4: The Ten Values Rated Most Deficient in the Community**

Statement Number	Mean	Desirability Ranking	Std. Dev.	Skewness
05	-0.40	25	1.07	0.50
12	-0.26	30	0.92	0.01
16	0.01	21	0.95	-0.18
08	0.14	26	0.99	-0.02
07	0.16	24	0.95	-0.43
01	0.22	02	0.89	-0.14
23	0.23	23	1.09	-0.11
02	0.24	08	0.95	-0.31
06	0.26	27	0.94	-0.14
11	0.31	28	0.96	-0.10

The ten values rated as most desirable, and the ten most deficient are shown in Table 3 and Table 4 respectively. The majority of the values that were perceived to be lacking were rated low in the desirability scale.

The exceptions were statements No. 1 [each family member should make it a point to communicate freely with one another] and No. 2 [children should be honest (and open) with parents]. Both these, which represent values in communications, were rated as desirable but lacking in the community. Furthermore, values relating to communications (Nos. 1 to 8) were all rated as relatively lacking in the community.

## CONCLUSIONS

The results of the survey represent the collective sentiments of the members of the College of Family Physicians Singapore. As can be seen from the characteristics of the sample, the average respondent is a middle aged professional who is married and with children. It is reasonable to assume that these and other characteristics have an effect on the opinion expressed.

Nevertheless, each respondent is a physician who work closely with patients in the context of their family life. They were also approached in their capacity as members of an academic body representing family medicine. We believe that their training and their daily work gives our members a certain privileged perspective on



desirable family values and the state of the family unit in our community. It is hoped that the findings will be of use to the effort to identify and propagate good family values in our society.

#### **ACKNOWLEDGEMENTS**

This project was supported by the 14th Council of the College of Family Physicians Singapore. We wish to thank the Secretariat of the College of Family Physicians of Singapore for its administrative assistance in the project. We also

wish to express our appreciation to the members of the College who have participated in the survey.

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## CLINICAL APPROACH TO DYSPEPSIA

*A S Noorhakim, MBBS, MMed (Fam Med)*

### INTRODUCTION

Dyspepsia describes upper abdominal pain or discomfort which may be related to meals or hunger. It is a rather non-specific symptom that includes pain or discomfort in the epigastrium and retrosternal area, heartburn, early satiety, fullness, belching, nausea or vomiting.

It has a reported prevalence of between 20-30% and is not an infrequent presentation in office practice. It is not a diagnosis in itself, but may be the telltale symptom of an underlying organic disease.

### AETIOLOGY

The organic conditions that may present with dyspepsia include malignancies of the stomach, lower oesophagus, liver and rarely, pancreas, peptic ulcer disease, gallstone- disease, gastritis, doudenitis, oesophagitis and pancreatitis.

It is essential to always be wary of myocardial infarction or ischaemia and early dissecting aortic aneurysm that may mimic such gastrointestinal conditions.

*Non-ulcer dyspepsia* denotes the presence of symptoms without demonstrable peptic ulcer disease after relevant investigations.

*Essential dyspepsia* denotes the symptoms in the absence of organic diseases and is likely to be, in part, due to functional abnormalities. The various factors implicated include increased gastric acid secretion, inflammation of the stomach and doudenal mucosae, *Helicobacter pylori* infection, delayed gastric emptying and mucosal hypomotility, doudenogastric reflux, food and stress.

The role of drugs in causing dyspepsia is fairly important. Examples would include aspirin and NSAIDs or nonsteroidal antiinflammatory drugs; theophylline; antibiotics like erythromycin; digoxin; and gemfibrozil. Drugs with anticholinergic activities that alter the gastrointestinal function like propantheline, antidepressants and antipsychotic agents may also be considered.

Alcohol consumption and cigarette smoking may contribute to or aggravate dyspepsia.

### HISTORY

The objective of the interview would be to ascertain severity, to assess likelihood of organic disease, to exclude the likely complications and perhaps most invaluable of all, to understand the patient's concerns and expectations.

It is usually at this juncture that the mental plan of management is drawn up and the rapport and confidence built would go a long way in the therapeutic endeavour ahead.

The following factors should call for a strong suspicion of organic conditions:

1. Patient's age of more than 40 years old.
2. Family history of malignancies or peptic ulcer disease.

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Family Health Service  
Hougang Polyclinic  
Singapore*

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3. Past surgery or treatment for gastrointestinal malignancy or peptic ulcer.
4. Pain affecting activities or sleep.
5. Associated loss of weight and appetite.
6. Presence of other symptoms viz. change in bowel habit, melaena and bleeding per rectum.
7. Abnormal initial investigation e.g., anaemia.

On the other hand, functional dyspepsia tends to be associated with these features:

1. A relatively long history with preservation of good health.
2. Vague symptoms with no or minimal interference with sleep and daily activities.
3. Symptoms that arise from or are aggravated by stress.
4. Presence of psychosocial problems.
5. Presence of other likely psychosomatic ailments.
6. Previous negative investigations.

Screening for risk factors and associated factors for the various differential diagnoses is important. A past history of ischaemic heart disease or its risk factors like hypertension, dyslipidaemia, and smoking and presence of effort intolerance may alert us to an atypical presentation of coronary insufficiency.

In the author's experience, a patient with the 5 'F's (female, fifty, fat, fertile and flatulent) may still be likely to have gallstone disease.

The social history of alcohol and cigarette use and the association of symptoms with medications and particular food or diet should be noted.

## EXAMINATION

Observation of the demeanour and appearance, together with a mental state examination where relevant, may uncover an underlying psychological problem namely depression or anxiety.

The weight and the presence of pallor and / or jaundice are noted. The abdomen is inspected for

scars from previous surgery and examined for organomegaly (including an aortic aneurysm). Enlarged Virchow's nodes may indicate an intra-abdominal malignancy.

The rectal examination is done and a cardiovascular assessment is performed where relevant.

## INVESTIGATIONS

The types and extent of investigations are individualised in accordance with the clinical circumstances and suspicion, always taking into consideration the patient's concerns. Initial tests include:

1. Full blood count,
2. Stool for occult blood,
3. Liver function tests,
4. Resting electrocardiogram.

Others include:

1. Barium meal X-ray or oesophagogastrroduodenoscopy;
2. Ultrasonography of the hepatobiliary system

Normal or negative results are suggestive of functional (essential) dyspepsia but in themselves could be a great reassurance and at times therapeutic.

## MANAGEMENT

Before any decision is made on therapy or surgery, it is best remembered that the presence of an identifiable lesion or lesions does not invariably indicate the true source of the symptoms.

Essential dyspepsia, if troublesome, may require the trials of different types of drugs. Generally, it is helpful to ascertain the nature of the dyspepsia as this may indicate the underlying mechanism. A trial of medication may be instituted for about two weeks but there is little benefit in persisting beyond four weeks in the absence of appreciable improvement.

**Table 1: Symptoms and Treatment**

Types	Treatment
1. Reflux Types 'Heart burn': sour taste with acid regurgitation	* Antacids * Histamine-2 receptor antagonists * Prokinetics (e.g. cisapride)
2. Dysmotility Type Fullness, floating, distension, early satiety, (feels hunger but eats little)	* Prokinetics (e.g. metoclopramide, domperidone, cisapride)
3. Ulcer Type Sharp, burning epigastric pains, localised with definite relationship to meals or hunger	* Antacids  * Histamine-2 receptor antagonist
4. Aerophagia Type Fullness, bloating, distension, early satiety, belching, flatulence.	* Carminatives * Simethicone * Prokinetics

Table 1 illustrates the treatment according to the various symptoms.

There is a role for anxiolytics and antidepressants as much as specialist-psychiatric review where indicated.

Since the relationship between *Helicobacter pylori* and non-ulcer dyspepsia is yet to be better defined, multi-drug therapy for its eradication is not included as empirical treatment of the condition.

## CONCLUSION

In the management of dyspepsia, a good history, examination and clinical suspicion would allow for a clear plan of management. There is no

avoiding the need for consideration of the medical, psychological and social aspects of each case. The challenge for the family practitioner is to provide the best response to this still ill-understood entity.

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## WORLD HEALTH ORGANIZATION PUBLICATIONS

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## NEW BOOK ANNOUNCEMENTS

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### **IMPLEMENTATION OF THE GLOBAL STRATEGY FOR HEALTH FOR ALL BY THE YEAR 2000: SECOND EVALUATION**

#### **Eighth Report on the World Health Situation**

Volume 5: European Region

WHO Regional Office for Europe

Copenhagen, 1994, vi + 290 pages

ISBN 92 4 160205 (HQ); 92 890 1316 8 (EURO)

In the late 1980s, Europe saw the beginnings of a process of change. Slowly at first and then gathering pace, this process developed into the enormous political and social changes now under way in central and eastern Europe and the former Soviet Union. At the same time, all European countries are faced with severe economic problems.

It is against this backdrop that the results of the second large-scale evaluation of WHO's health for all strategy in Europe must be seen. Undertaken in each country of the Region in 1990 - 1991, the evaluation is possibly the last and most extensive overview of the health of Europe on the brink of a new era.

The evaluation shows that, on balance, health in the Region improved in the 1980s, with increased life expectancy, progress on eliminating infectious diseases, and reduced mortality from the leading causes of death. Development on other fronts,

however, was moderate to disappointing, with no real progress at all on the primary target for all — equity. Nevertheless, there are real grounds for optimism in the fact that health policy development has taken a big step forward.

The report, which comprises Volume 5 of a seven-volume work (a global overview plus individual reports from WHO's six regions), is in two parts. Part I describes, in eight chapters, the situation in the Region as a whole and Part II provides a country-by-country review. Because of the profound changes in the Region around the time of the evaluation, there was insufficient up-to-date information adequately to reflect the rapidly changing realities in some countries. Part II therefore does not contain reports on the countries of central and eastern Europe and the former Soviet Union, but includes a special feature on the gap in health between the eastern and western halves of the Region.

## **FLUORIDES AND ORAL HEALTH**

### **Report of a WHO Expert Committee on Oral Health Status and Fluoride Use**

WHO Technical Report Series, No. 486.

1994, v + 37 pages

ISBN 92 4 120846 5

This book evaluates recent scientific and clinical data on the safety and effectiveness of fluorides as a measure for preventing dental caries. Adopting a public health approach, the report aims to determine which of the currently available methods of fluoride administration will provide the best, safest, and most cost-effective protection in different parts of the world, with different resources and population needs. Particular attention is given to the question of whether population-wide protection can be achieved without the development of dental fluorosis. All other potential health risks linked to fluoride use are also critically assessed in an effort to provide solid public health advice.

Information is presented in twelve main sections. The first five concentrate on recent studies of fluoride that strengthen current public health policy. Separate sections summarize what is known about environmental sources of fluoride, its metabolism and excretion, and its effects on teeth and bones. Concerning the problem of skeletal fluorosis in some tropical areas, the report emphasizes the need for public health authorities to periodically monitor the population's total fluoride exposure. Other sections describe traditional and newer biomarkers that can be used to identify fluoride

intakes, and review what is known about the fluoride levels needed to prevent caries.

The second half of the report reviews clinical experiences with each of the main methods of fluoride administration, including fluoride in drinking-water, fluoridated salt, fluoridated milk, fluoride supplements in the form of tablets and drops, fluoridated toothpastes, and topical use of fluoride. Each method is considered in terms of its safety, limitations, public health impact, costs, optimum concentration or dosage, and advantages in particular populations or situations. Information ranges from the conclusion that water fluoridation is the most effective method of reaching the whole population in communities with a piped water supply, through guidelines for the application of topical gels, to the recommendation that fluoridated toothpaste for use by children should not be candy-flavoured. The report also calls for an adjustment in recommended levels of fluoride and the development of affordable and effective fluoride-containing toothpastes as a major priority for much of the world.

The report concludes with a discussion of problems caused by multiple sources of fluoride, followed by a series of sixteen recommendations pertinent to public health policy and future research needs.

# GUIDELINES FOR AUTHORS

## THE SINGAPORE FAMILY PHYSICIAN

Authors are invited to submit material 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 work, audits of patient care, protocols for patient or practice management and review articles.

### PRESENTATION OF 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 three copies of all elements of the article: summary, text, references, tables and illustrations. The author should retain a personal copy.

#### 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 describe why the article was written and give the main argument or findings.
- \* Limit words as follows: 100 words for major articles; 50 words for case reports.
- \* Add at 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 patient's names, initials or hospital numbers.

- \* Results: Present results in logical sequence in the text, tables and illustrations.

