

Importance and relevance of primary health care

Primary health care (PHC) as a concept was officially launched in 1978 at a World Health Organization (WHO)/UNICEF conference in Alma-Ata, in the former Soviet Union, at which some 150 governments were represented. The Alma-Ata Declaration (World Health Organization 1978) defined PHC as follows:

Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.

The Alma-Ata Declaration identified 10 activities as the basic elements of PHC (Table 1); as can be seen, general practice is only one component of this. The Declaration contains important socio-political implications that address not only treating disease, but also ensuring fair access to a positive state of well-being for all citizens. It recognises the social, economic and environmental determinants of health and promotes the importance of community participation. It also

Box 1 Defining primary care
<ul style="list-style-type: none"> ■ Value driven: dignity, equity, solidarity and ethics ■ Protects and promotes health ■ Centred on people but allowing self reliance ■ Focus is quality including cost effectiveness ■ Sustainable finances, allowing universal coverage and equitable access

Source: Ljubljana Charter, WHO, adopted by EU, 1996

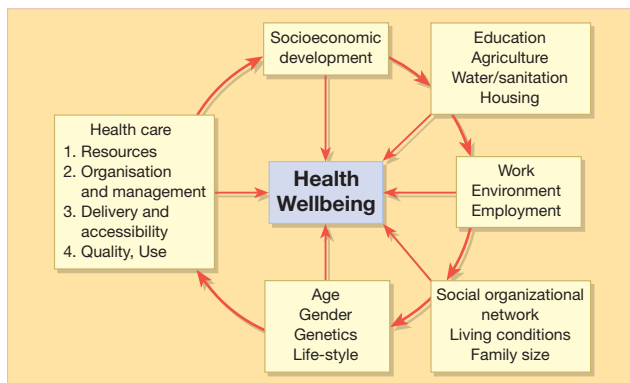


Fig. 1 **Determinants of health.** (Adapted from Tarimo and Webster 1994.)

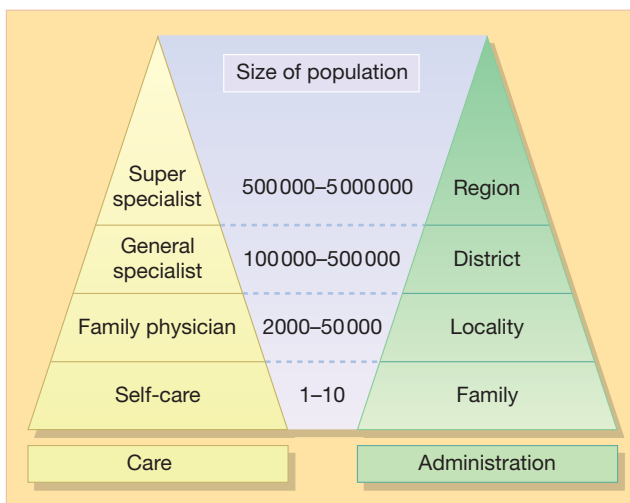


Fig. 2 **Levels of care and administration.** (Source: Fry and Sandler, 1993.)

acknowledges that improvements in health result mainly from activities outside the health sector (Fig. 1).

Fry and Sandler (1993) have described four-levels of care and administration in all health-care systems that relate to population size and the nature of disease and other problems at each level (Fig. 2). Primary care provides the first level of professional care within a locality or

community, occupying the interface between self-care and hospital-based secondary (general specialist) and tertiary (superspecialist) care.

PHC can be viewed in four ways (Vuori 1986):

1. *as a set of activities:* as outlined in the Alma-Ata Declaration (Table 1);
2. *as a level of care:* PHC being that part of the care system which people contact first when they have a health problem;
3. *as a strategy for organising health services:* defined as accessible care, relevant to the needs of the population, functionally integrated, based on community participation, cost-effective and characterised by collaboration between all sectors of society. This may also require a re-orientation of health personnel and resources from tertiary and secondary to primary health care.
4. *as a philosophy that should permeate the entire health-care system:* the essence of the PHC movement. A

Table 1 Basic elements of primary health care
■ Health education
■ Identifying and controlling prevailing health problems
■ Food supply and proper nutrition
■ Provision of safe water and basic sanitation
■ Maternal and child health care, including family planning
■ Immunisation
■ Prevention and control of endemic disease
■ Appropriate treatment of common diseases and injuries
■ Promotion of mental health
■ Provision of essential drugs

Source: Tarima and Webster (1978)

country can claim to practise PHC only if its entire health-care system is characterised by social justice and equality, international solidarity, self-responsibility and an acceptance of the broad definition of health.

The role of primary health care

The primary care physician has a number of functions (World Health Organization 1971):

- to provide continuous and comprehensive care
- to refer to specialists and/or hospital services
- to co-ordinate health services for the patient
- to guide the patient within the network of social welfare and public health services
- to provide the best possible health and social services in the light of economic considerations.

In the UK primary care physicians are known as general practitioners (Box 1). The term ‘gatekeeper’ has been used to describe the GP’s role in determining patients’ access to specialist services.

In order to fulfil these functions, the doctor requires four skills specific to general practice (McWhinney 1997):

1. skills to solve undifferentiated problems in the context of a continuing personal relationship with individuals and families
2. preventive skills – the identification of risks and early departure from normality in patients who are known to the doctor
3. therapeutic skills – the use of the doctor – patient relationship to maximise the effectiveness of all kinds of therapy
4. Resource management skills – the deployment of the resources of the community and the health care system for the benefit of patients.

As teaching and research have become more mainstream activities within PHC, doctors have recently had to acquire skills in these areas too.

The benefits of primary health care

Health service reforms in UK and around the world are moving towards primary care-centred services. The available evidence broadly supports this shift, although it also indicates the limits of substitution for secondary care. Starfield (1992) reviewed primary care in 11 Western nations, with the following conclusions:

Box 2 Definition of a general practitioner

- Provides personal, primary and continuing medical care to individuals and families
- Makes an initial decision on every problem presented
- Consults with specialists when appropriate
- Intervenes to promote health
- Clinical decisions influenced by prior probability of disease
- Has an advocacy role for the patient
- Specific responsibility for the health of the community

Sources: Royal College of General Practitioners 1992; WONCA Europe 2002

Box 3 Characteristics of general practice and primary care

General practice	Primary care
Focus is illness:	Focus is local communities:
<ul style="list-style-type: none"> ■ Individuals and families ■ First contact ■ Local and accessible ■ Small scale efficiency ■ Tolerates uncertainty 	<ol style="list-style-type: none"> 1. Local communities using local knowledge 2. Concerned about determinants of health <ul style="list-style-type: none"> ■ Socio-economic ■ Environmental 3. Empowers communities to control/influence determinants of health 4. Education and prevention are key pieces
The three Cs: continuity, coordination, continuing care	

- A higher primary care orientation is likely to produce better health for a population at a lower cost.
- Primary care is not necessarily synonymous with managed care (which restricts medical choice in terms of investigation, referral and treatment).
- The total health-care expenditure is generally higher in countries where health-care systems are left to the vagaries of market forces.
- Free market systems appear to have higher inpatient costs per capita and a higher per capita expenditure on medication.
- The restriction of specialists to hospitals and their payment by salary are generally associated with a better systems performance for the population as a whole.
- The regulation of the location of physicians and their equitable distribution across the population are generally associated with better health system performance.

The process that Starfield sees giving PHC its strengths is identified as

front-line, ongoing care that is comprehensive and coordinated. Further details are given on pages 10 and 11.

Other international studies have found associations between availability of PHC and health outcomes (including reduced hospital use), patient satisfaction and reduced health-care costs.

There is also evidence of positive benefits from shared care (between GPs and hospital specialists) for patients with asthma; hypertension; childhood cancers. The evidence for the cost-effectiveness of the primary care management of diabetes mellitus is, however, ambiguous, and there is some evidence that although patients’ satisfaction and knowledge of their condition might be better, the level of control is poorer than with hospital management.

Although much of the political interest in PHC around the world has been driven by cost-containment agendas, primary care-centred services are not always cheaper than hospital-based services.

Primary care

- Primary health care can be seen as a set of activities, a level of care, a strategy for organising health services and a philosophy that should permeate the entire health care system.
- General practitioners have a key role as ‘gatekeepers’ in determining patients’ access to specialist services.
- Primary health care is front-line, ongoing care which is comprehensive and coordinated.
- Health care systems with a higher primary care orientation tend to produce better health of a population at lower costs.

Family medicine

In the UK, GPs are (or used to be) commonly known as 'family doctors', and the term 'family practitioner' has been widely adopted in the USA by many primary care generalists. The family doctor concept is most likely to have applied primarily to rural areas, where there might only have been one single-handed doctor. In areas of larger population, and in modern times when single-handed practice is much less common, the model may be considerably diluted. It depends to an extent upon all members of a family being registered with the same practice, but this is quite commonly not the case, mainly because, on marriage or co-habitation, partners frequently choose to stay with their original GP.

Of all doctors, however, GPs are usually the most aware of family and environmental influences on health and are often best placed to deal with them. Family structures, or their equivalent, are generally the building blocks of all civilised societies. It is important to emphasise that, when they work successfully, family

structures provide invaluable nurture and support for their members, both in sickness and in health. When, however, family dynamics go wrong, the family may contribute to the development of ill-health.

Families go through a predictable life cycle (Fig. 1), each stage having its own potential problems. Some of these are discussed later in the book (see Sections on age related and sex related problems).

How the family and environment may cause ill-health

Upbringing

How we are nurtured and moulded by our parents is perhaps one of the most important ways in which family relationships may affect our subsequent health (Box 1). The relationships in some family groups may be frankly abusive, either physically and/or mentally, and although we do not deal with such extremes in detail here, GPs are constantly on the alert for possible criminal abuse (Box 2), which may take place in apparently stable and 'nice' families, including those of

professionals such as doctors themselves.

Nature or nurture?

It is difficult to separate the effects of inheritance and upbringing. Genetics research (see pp 94–95) is increasingly uncovering predispositions to disease

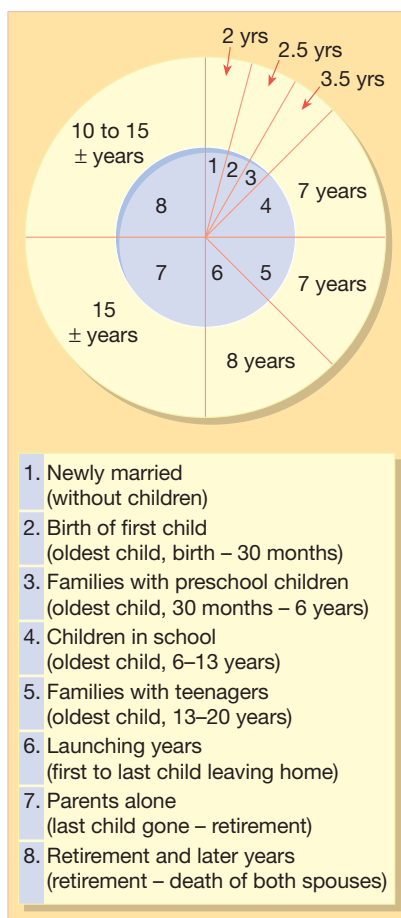


Fig. 1 **The family life cycle.** (Source: McWhinney, 1981. Modified from Duvall 1977)

Box 1 Parent behaviours that are potentially damaging

- One or both parents being persistently unresponsive to a child's care-eliciting behaviour, or being actively disparaging and rejecting
- Discontinuities of parenting, occurring more or less frequently, including periods in a hospital or institution
- Persistent threats by parents not to love a child, used as a means of controlling him or her
- Threats by parents to abandon the family, used either as a method of disciplining the child or as a way of coercing the spouse
- Threats by one parent either to desert or even to kill the other, or else to commit suicide (each of these being more common than might be supposed)
- Inducing a child to feel guilty by claiming that his behaviour is or will be responsible for the parent's illness or death.

Source: Bowlby (1969). Quoted in Henderson A S (1988)

Box 2 Maltreatment of children

- Non-accidental injury. This may be suspected when children show unusual, difficult to account for, injuries, for example bite marks, cigarette burns or scalds, or bone or periosteal injuries, or display indications of multiple injury over time, such as bruises of different ages. Shaking a young child is a particularly dangerous form of abuse that can result in serious brain injury. Parents have often had a troubled or abusive childhood themselves; the child may be difficult to manage or may be emotionally rejected by the parents; there are often underlying marital problems, particularly with very young parents; and there may be a lack of a supporting family and social structure for the parents.
- Sexual abuse. Although associated with interference by 'strangers', sexual abuse is actually more likely to be carried out by family members or friends of the family.
- Child neglect. Children may be harmed by negligence or a lack of 'common sense', particularly when the parents are themselves of low intelligence, are poorly educated and have poor role modelling from their own deprived childhood.
- Emotional abuse and deprivation. A child may be well looked after physically but suffer from a withdrawal of affection, insecurity and a general atmosphere in the household of repression and hostility. These subtle forms of abuse may be difficult to detect (see Box 1)
- Munchausen syndrome by proxy is a well-publicised but rare and bizarre form of abuse in which illness in the child is falsely created by a carer, usually the mother. See also Hull and Johnston (1993)

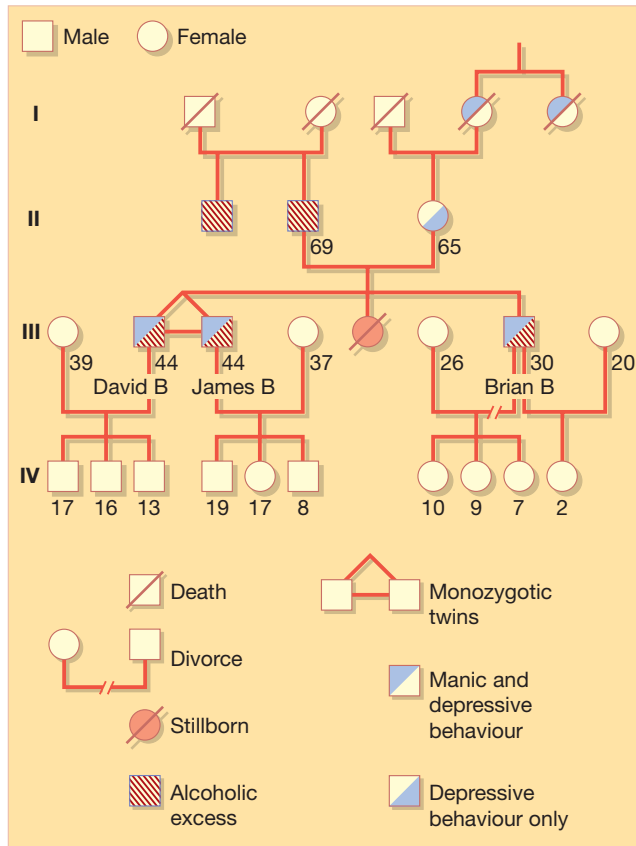


Fig. 2 The inheritance pattern of bipolar affective disorder in a family. ○ = female; □ = male (Source: Rakel 1977)

that are wholly or partially determined by inheritance. GPs are often struck by how patterns of ill-health 'run in families', and the use of family charts (Fig. 2) may help in breaking, or at least anticipating, these patterns. In the example given (bipolar affective disorder, a type of depressive illness), there are probably both genetic and environmental factors.

Family circumstances

The social standing of the parents, cultural (including religious) and other social attitudes, and the economic circumstances of the family all have a potential effect on causing, or conversely combatting, ill-health. Of these, the most pervasive effects are those of socio-economic deprivation.

It might be thought that, compared with the devastating poverty of so-called 'Third World' countries, few people in the developed world can be considered to be deprived. Within developed countries, however, it has been very convincingly shown that although the basics of life (shelter, food, clothing etc) may have been well met, and there may even be luxury items such as televisions and cars, families that are poor in relation to others in that country ('relative deprivation') consistently experience

much poorer health. In Britain, people in the lowest fifth of the population in terms of income are four times more likely to report their health as being not good as are those in the highest fifth (Fig. 3). Although it is difficult to separate out the effect of a difference in life-style (smoking, alcohol consumption, exercise etc), unemployment, lone parenthood and low wages are thought to be major factors in a vicious circle of poverty, resulting in 'social exclusion', stress and anxiety, and a limitation of life choices, as well as militating against possible desirable changes in life-style.

The role of primary health care

The main role of primary health-care staff is to be alert to the possibility of family problems. Teamwork, usually involving health visitors, social work

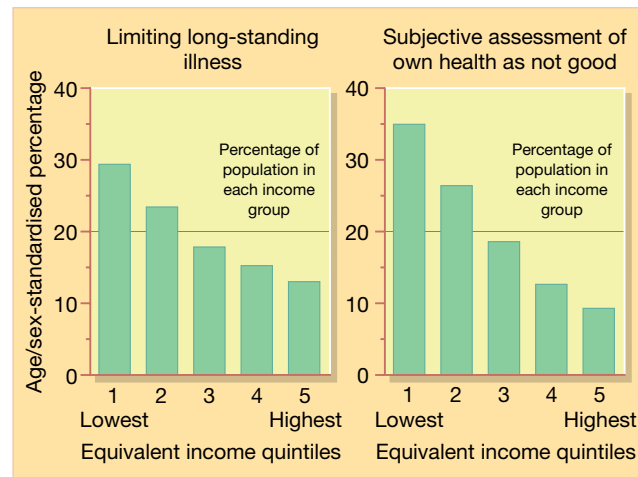


Fig. 3 Age/sex-standardised number of individuals reporting morbidity in each equivalent income group as a percentage of all individuals reporting morbidity. (Source: General Household Survey, 1985. From Benzeval et al 1995.)

staff and community nurses, as well as the doctor, is particularly essential in tackling simple family problems. Good communication between members of the team is also essential, and visits to the family home and/or simple family therapy with couples or family groups may be part of the team's strategy. For more major problems, it is usually desirable to seek help from specialist family therapists (Box 3).

Box 3 Psychosocial problems likely to benefit from behavioural family therapy strategies

- Children's conduct disorders
- Learning disabilities and autism
- Adolescent behavioural disturbance
- Marital and family conflict
- Sexual dysfunction
- Drug and alcohol misuse
- Family violence and child abuse
- Pre-marital counselling
- Divorce mediation
- Eating disorders
- Suicide prevention
- Residential care: homes, hostels, etc
- Criminal offending problems

Adapted from Falloon et al (1993)

Family medicine

- The idyllic model of the GP as 'family doctor' may never have been universally true and is now considerably diluted, especially in urban practice.
- However, modern general practice training lays great emphasis on family and environmental influences on health, even if an individual GP may now less frequently look after all family members.
- Families have both bad and good influences on health of individuals and these influences vary at different stages in the life cycle of a family.
- The effects of genetic inheritance and upbringing are difficult to separate but the most pervasive influence is adverse socio-economic circumstances.
- Tackling family problems usually needs a team approach, with specialist input for major difficulties.

Infections and infestations of the skin

Infections of the skin are amongst the commonest of diseases. Most people will have experienced one or other of these at some time. Skin infections are broadly of three types:

- fungal
- viral
- bacterial.

This section deals only with some common examples, and we also exclude generalised rashes due to the specific infectious fevers of childhood, such as measles and chickenpox.

Fungal infections

The common fungal infections used to be called 'ringworm' because the rash can look worm shaped (Fig. 1), but there is no connection with worms of any kind. Fungi tend to grow particularly in moist, warm conditions, and infections can be passed from person to person through common facilities such as showers and swimming baths. 'Athlete's foot' is the commonest form but fungi can also affect the scalp, any part of the body, but particularly around the genital area and the nails.

Another separate kind of fungal infection is 'thrush' or candidiasis. It is again common in warm moist areas

such as the skinfolds, genital area and vagina itself, although it can affect virtually any part of the body. Obesity, diabetes and antibiotic use are thought to encourage thrush to develop. Vulvo-vaginal thrush will usually cause a whiteish vaginal discharge in addition to the skin inflammation.

Most of these infections are relatively harmless and susceptible to treatment.

Viral infections

The commonest skin infection is undoubtedly the verruca or common wart. Warts are due to human papilloma virus (HPV). They most commonly affect the hands (Fig. 2) or the soles of the feet but they can also occur on the penis or female genital area. Molluscum contagiosum is a less common condition, caused by a different virus, but generally similar in its effects (Fig. 3) and equally harmless. Our third and final example is cold sores (Fig. 4) which are due to a virus called herpes simplex. Cold sores arise because the virus lies dormant in the skin and flares up from time to time. They are not serious but can be difficult to eradicate. The herpes virus can also affect the genital areas and be transmitted by sexual intercourse.

Shingles (Fig. 5) is caused when the chickenpox virus (herpes zoster, quite a different virus from herpes simplex) is re-activated, usually in adulthood or old age, in someone who has already had chickenpox as a child. The virus lies dormant in the nervous system of the body and, when reactivated, spreads down a nerve to cause a blistery rash on the area of skin supplied by that nerve (see the dermatome chart on page XX).



Fig. 1 **Tinea corporis ('ringworm')**, showing a ring pattern. Source: Gawkrödger 2003



Fig. 2 **Viral warts** on the hand. Source: Gawkrödger 1997



Fig. 3 **Molluscum contagiosum on the neck**. Source: Gawkrödger 2003



Fig. 4 Cold sores on the face of a child. Source: Gawkrödger 2003



Fig. 5 **Herpes zoster (shingles)** in early stages, showing a characteristic 'band' distribution, here affecting left dermatomes C4 and C5. Source: Forbes and Jackson 1997

Case history

A 25-year-old single mother brings her 6-week old baby to see the doctor with oral thrush. The baby is already sucking on a soother. The doctor notices that the 2-year old sister has peri-oral impetigo. Mother then asks for 'something' for her 6-year old daughter who is at home with an itchy rash. Looking at her case reports you discover that she has been prescribed treatment for scabies on a number of occasions over the past 12 months. You consider that the hygiene of this vulnerable family is poor. How are you going to help this family and what pharmacological agents will you use, and which members of the primary care team will you involve in the continuing care of this family?

Don't read this until you have come to some conclusions of your own!

The main underlying problem here is an educational one and it needs a coordinated approach from the primary health care team. Nowadays, a problem of this kind might present directly to the nurse prescriber in the UK and the doctor might not be involved. Generally, however, the response would come from the general practitioner and a health visitor or public health nurse. It would be important for one or other practitioner, probably the health visitor, to visit the family home to assess home conditions and to tailor the educational approach to this. It is unlikely that a single session would be enough to educate the mother properly and, in any case, further visits would be needed to check that education is being effective and hygiene is improving. It would be essential to take a friendly and supportive approach, rather than being judgemental, and to point out what would be the direct benefits to the family. For example, they would be healthier and the mother in the end would save time spent in looking after the children. Scabies can be treated with anti-scabietic lotions which are applied all over the body. All the family must be treated at the same time and there are other measures that need to be taken to ensure that the scabies mite does not survive the treatments and re-occur. The health visitor or other health worker would be best to supervise the treatment more closely than usual. Antibiotics could be prescribed for the impetigo and treatment given for the baby's oral thrush but, for example, it would be important to take other measures to prevent recurrence of infection, such as getting rid of the baby's soother (which may be carrying infection) or, at least, sterilising it with suitable chemicals from time to time.

Infestations

The common infestations of the skin are fleas, lice and scabies. These infestations are not necessarily connected with poor body hygiene and commonly occur in individuals who pride themselves on their cleanliness. There has to be some element of contact with another individual who has the infestation, therefore these infestations are more common where accommodation (particularly sleeping accommodation) is widely shared, for example in student accommodation, military barracks and oil rigs. Fleas are most commonly caught from pets and these animal fleas usually cause only a few bites on humans, as they prefer the animal host. Human fleas are more persistent but fortunately less common. Head lice are virtually epidemic in most school age children in the UK but other manifestations, e.g. pubic and body infestation are relatively rare. Although invariably precipitating much disgust in the parents (who are often from well-to-do homes) head lice are really quite benign and cause little real trouble, but can be quite difficult to eradicate. Scabies spreads within families more than within institutions, and seems to require quite close contact. In order of size, lice are probably the largest of the three and are easily seen, although the white eggs or 'nits' are much smaller. Lice are slow moving but fleas, which are rather smaller, can jump quite quickly. Scabies is caused by a mite which is virtually invisible to human sight. The mite burrows into the skin and, although this may be visible, it is usually the scratch marks caused by the intense itching reaction which are seen. A generalised itch over the whole body can be produced by a single mite.



Fig. 6 **Boil or furuncle.** Source: White 1997

Although very uncommon in the UK, insects can transmit infections via their bites, as where the mosquito passes on malaria, or where ticks from deer and other animals can transmit Lyme disease. Finally, there are other kinds of parasite, particularly protozoa, which commonly cause skin disease in tropical countries, but are not dealt with here.

Bacterial infections

There are a number of general infections affecting the body as a whole which also produce skin rashes. Examples include scarlet fever, where a generalised skin rash is produced in association with streptococcal infection of the throat. Also, bacteria (and fungi) can *secondarily* infect existing skin diseases, such as eczema. However, we deal particularly here with *primary* infections of the skin. Most readers will know of the common types, such as boils (folliculitis) and impetigo (Figs 6 and 7). These are usually caused by bacteria called *Staphylococci* or, less frequently, *Streptococci*, both of which can be treated with antibiotics. Against the need for antibiotic treatment has to be set the dangers of producing antibiotic resistance, particularly in *staphylococci*.



Fig. 7 **Impetigo.** Source: Gawkrödger 2003

Infections of the skin

- Skin infections are very common and are usually contracted from other people who have the infection.
- Fungal infections commonly cause 'athlete's foot' and 'thrush'.
- Bacteria commonly cause boils and impetigo.
- Usually all of these infections can be easily treated.
- Fungi, viruses and bacteria are the usual causes.
- Viral infections are commonly responsible for warts and 'cold sores'.

Common mental health problems III

Schizophrenia

Schizophrenic-like illnesses have been recorded from ancient times, but the term 'schizophrenia' was first used in 1911 by Bleuler. Schizophrenia is a chronic relapsing and disabling illness that is now being treated less in long-term institutional care and more in the community. Community care is sometimes controversial and may be fragmented and indeed inappropriate.

Diagnosis

A diagnostic project in the USA and the UK (1972) pointed out a significant difference in the diagnosis of schizophrenia between the two countries. In the USA cases that would be diagnosed as depression, mania or personality disorder in the UK were called schizophrenia. The tighter the range of symptoms that are accepted as diagnostic of schizophrenia, the more reliable is the diagnosis, which led Kurt Schneider, founding father of psychiatry, to produce his list of so-called first rank symptoms of importance (Table 1). Even he, however, conceded that they do not always have to be present for a diagnosis to be made.

Estimates of the prevalence of schizophrenia depend on the criteria used for diagnosis. The annual incidence is probably between 0.1 and 0.5 per 1000 people and the lifetime risk of developing schizophrenia 7–9 per 1000 people. A GP with an average list size will thus have between 5 and 10 people with schizophrenia to look after.

Table 1 **Schneider's symptoms of first-rank importance in the diagnosis of schizophrenia**

■ Hearing thoughts spoken aloud
■ Third-person hallucinations
■ Hallucinations in the form of a commentary
■ Somatic hallucinations
■ Thought withdrawal or insertion
■ Thought broadcasting
■ Delusional perception
■ Feeling that reactions are made or influenced by external agents

The risk of a child developing schizophrenia is about 15% if one parent is schizophrenic and about 40% if both parents carry the diagnosis, providing clear evidence of a familial aetiology that may be attributable to the family environment rather than genetic factors.

Clinical features

In few other conditions do the features of the acute illness differ so much from those seen in the chronic illness (Table 2). Factors influencing outcome are listed in Table 3.

Management

The best results are obtained by combining drug and social treatments. The phenothiazine drugs (chlorpromazine, fluphenazine, and thioridazine) have an immediate calming and sedating effect on the patient but a slower anti-psychotic effect in the acute illness. The first effective drug to be used in the treatment of schizophrenia was chlorpromazine, but a wide range of similar medications is currently available, each with a different side-effect profile.

A significant minority of people with schizophrenia have, however, a resistance to phenothiazine-based medications. Clozapine achieves a good response in those who do not respond to traditional treatment, but

Table 2 **Clinical features of acute and chronic schizophrenia**

Acute	Chronic
Delusions	Apathy
Hallucinations	Lack of drive
Interference with thinking	Slowness
	Social withdrawal

Table 3 **Factors predicting the outcomes of schizophrenia**

Good prognosis	Poor prognosis
Sudden onset	Insidious onset
No previous psychiatric history	Previous psychiatric history
Paranoid symptoms	Male gender
Older age at onset	Younger age onset
Good previous personality	Living alone
Good employment record	Poor pre-morbid personality
Good social networks	Unemployment
Good compliance with medication	Poor compliance with medication

2% develop agranulocytosis in the first 18 weeks after starting treatment. Hence intensive white cell count checks are required early on and regularly thereafter. The powerful serotonin antagonist risperidone, without the haematological side-effects of clozapine, is also useful in treatment-resistant schizophrenia. Electroconvulsive therapy is reserved only for highly refractory cases.

Care in the community

The number of psychiatric beds in major institutions has decreased dramatically over the past 40 years because of a policy of moving people with chronic psychiatric problems into the community. This requires effective teamwork between agencies such as the medical social services, community psychiatric nurses and the patient and family. A keyworker is appointed who implements an agreed care plan. For community care to be successful, it needs inter agency co-operation with back-up from day-care centres, hostels and sheltered housing.

Case history

MJ is a 55-year-old woman with a history of schizophrenia. She was first admitted to a psychiatric hospital when aged 23. She lives with her elderly husband who has severe chronic obstructive pulmonary disease (COPD). She attends your practice weekly for repeat prescriptions of diazepam and anticholinergic medication. She is on long-term depot antipsychotic medication. This was previously administered by the community psychiatric nurse but last year MJ defaulted from care in the psychiatric services and now receives her depot medication from your practice. You can liaise with the community psychiatric nurse if required.

Effects of schizophrenia on carers

The move to the community has caused particular difficulties for families. Patients with chronic schizophrenia suffer from social withdrawal, which means that they may not interact with other family members and may neglect themselves. Socially embarrassing behaviour brings patients to the attention of neighbours and the police, who will contact the family and the GP with the request that 'something must be done'. Relatives often feel anxious, depressed, guilty or helpless. They are often uncertain how to deal with difficult and odd behaviour, the stigma of mental illness discouraging open communication about the problem with friends and neighbours. This is a serious problem because good social and family networks are an important factor in good outcome for patients with schizophrenia.

Cognitive behavioural therapy

Cognitive behavioural therapy (CBT) is a psychological treatment that involves working with people to help them identify and deal with their problems.

It has been referred to as the 'talking cure'. It is used most commonly to treat patients with depression or anxiety though it is also used for many other conditions, such as eating disorders, chronic pain, chronic fatigue, personality disorders and schizophrenia. CBT is a collaborative treatment that can be offered at different levels of input from specialist treatment through to more focused interventions, such as self-help. It is frequently used in conjunction with medication and most commonly involves a course of between 6 and 20 1-hour treatment sessions.

Drug treatment

Chlorpromazine and haloperidol are long standing medications used for the control of psychotic symptoms. Their efficacy reaches a plateau whereas their frequent side-effects of sedation and extra pyramidal symptoms are dose related. The last decade has seen the emergence of new atypical antipsychotics that seek to be more effective against depressive and cognitive symptoms and that produce fewer extra pyramidal symptoms. A recent metaanalysis produced for the

national schizophrenia guideline development group has concluded that there is no clear evidence that the newer antipsychotics are more effective or better tolerated than the older conventional antipsychotics. However, the metanalysis did note that there are fewer extra pyramidal symptoms with the newer antipsychotics but recommended that conventional antipsychotics (chlorpromazine and haloperidol) should remain as the first line of treatment in schizophrenia.

Table 4

Conventional antipsychotic drugs
Chlorpromazine
Haloperidol
Newer antipsychotic drugs
Amisalpride
Clozapine
Olanzapine
Quetiapine
Risperidone
Sertindole

References

www.mind.org.uk
www.babcp.com
www.nelh.nhs.uk/guidelines/schizophrenia

Common mental health problems

- Ten per cent of those who consult their GP are depressed.
- Depression has biological, psychological, social and cultural features.
- Before modern pharmacology, mania could last for months and years.
- Anxiety and depression often occur together.
- While benzodiazepines are effective in anxiety, patients rapidly become dependent on them.
- Schizophrenia is a chronic relapsing disabling illness.
- The best outcomes in schizophrenia are obtained by a combination of pharmacological and social care.

Prescribing/medicines utilisation

Please see Appendix 4 (p. 102) for an example of a UK prescription

In the UK as a whole, about 20% of all medicine consumed by the public is bought 'over the counter' (OTC) – without a doctor's prescription – the remainder being provided mostly on prescription through the NHS. Similarly, about 20% of all NHS medicines are provided through hospitals, the remaining 80% being prescribed in primary care. In 1997/98, about £8 billion was spent on medicines in the UK – roughly £150 per person, £115 per person being provided through the NHS. Nevertheless, in comparison with other countries, UK medicines consumption is moderate (Fig. 1), and the NHS is good value for money, costing about half as much as the mixed American-type public/private model.

As at January 2001, a charge of £6.20 is due for each NHS prescription item, but about 50% of patients are exempt from the charge (Table 1), and in 1996 only about 15% of items were charged for (because people who are exempt tend to receive most of the prescriptions).

Prescription of medicines

Although most medicines can be supplied on an NHS prescription, a written prescription from an authorised prescriber (doctor, dentist or, in limited circumstances, nurse prescriber) is a *legal requirement* only for those medicines classified as prescription-only medicines (POMs) by the licensing authority. Many medicines can be purchased directly

Table 1 Exemption from prescription charges in NHS

■ Children under 16 years of age and some students
■ Those aged over 60
■ Those carrying a health authority exemption (maternity) certificate
■ Sufferers of some chronic illnesses, e.g. diabetes, hypothyroidism and epilepsy
■ War pensioners
■ Those on a low income
■ Oral contraceptives (provided free to all)

from a pharmacist (pharmacy, or P category) and some can be purchased from supermarkets and other general stores (general sale list, or GSL). Some POM medicines are specially tightly controlled (e.g. heroin, amphetamines and temazepam) mostly because of the potential for their abuse.

Many modern medicines are wonderfully effective. New treatments for stomach ulcer have, for example, virtually eliminated the need for major surgery, which was formerly the only effective treatment. Appendix 1 shows some of the commonly used drug groups and illustrates the important fact that they almost always have some bad, as well as good, effects. Even herbal remedies, which are generally thought to be harmless, can have adverse effects. St John's Wort, a plant extract taken for mild depression and as a 'pick me up', has, for example, been found to interfere with the effects of prescribed medicines such as warfarin and the contraceptive pill.

There are probably well over 1000 prescription medicines, most GPs limiting their use to a few hundred 'favourite' preparations so that they get

Table 2 Examples of information support available to prescribers

■ General journals – e.g. <i>British Medical Journal</i> and <i>British Journal of General Practice</i>
■ Specific journals and periodicals – e.g. <i>Prescribers' Journal</i> , <i>Drug and Therapeutics Bulletin</i> , <i>National Prescribing Centre MeRec Bulletins</i> , <i>Prescriber and Medicines Resource</i> (Scotland)
■ Formularies – principally the British National Formulary, which is now also available in CD-ROM form. Most regions also have local formularies constructed around the British National Formulary

Table 3 Ways in which pharmacists can provide prescribing support for GPs

■ Monitoring drug therapy for individual patients, e.g. reviewing repeat prescriptions
■ Services to nursing and residential homes, by auditing prescribing for residents
■ Prescribing analysis, reviewing general treatment policies, using PACT or SPA data
■ Formulary development
■ Discharge prescribing and liaison with hospitals

to know these well. There is a great deal of information support available to prescribers (Table 2) – in some ways too much. In the UK the National Institute of Clinical Excellence (NICE), set up in 1999, will help by disseminating authoritative national guidance. Computerised decision support systems (such as PRODIGY, a system widely used in general practice in England), which selectively present evidence-based information to help the prescriber to choose the best medicine(s) for a particular individual patient, will become increasingly sophisticated and an essential tool for handling the information overload.

Increasingly, other health professionals are involved in prescribing in primary care. Some nurses can already prescribe in a limited way, and a recent government review will considerably extend this in future. Pharmacists in particular have an important role in helping GPs to maintain high-quality prescribing (see Table 3).

Proprietary (brand) and generic names

Most drugs are known by both brand and generic names. The generic name is an officially approved name for all preparations of that drug; propranolol, for example, is the generic name for a medicine commonly used in the treatment of heart disease and high

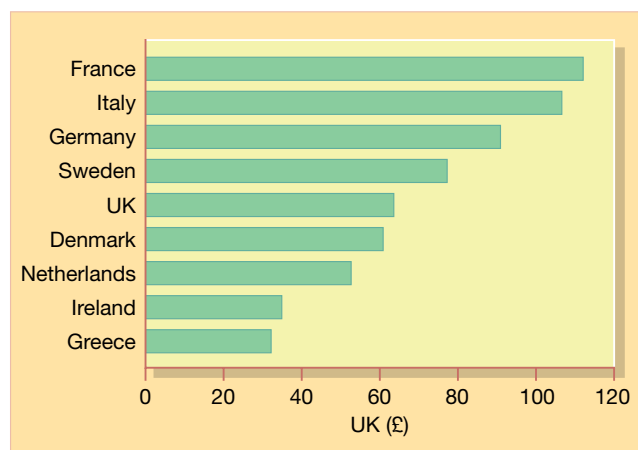


Fig. 1 Histogram showing cost of all medicines taken per person per year (1990). The UK cost is about 23% below the average for Europe and 40% less than that in the USA.

Table 4 The more commonly prescribed groups of medicines by GPs (1992)

Medicines for treatment of:	Percentage of all prescriptions	Percentage of total cost
Nervous system (includes some pain-killers as well as e.g. antidepressants and sedatives)	18	11
Heart and circulation	17	19
Infections	11	7
Respiratory conditions (e.g. asthma)	10	12
Stomach and gut	8	14
Skin	7	5
Muscles and joints	6	8
Endocrine system (e.g. diabetes)	5	7

Source: House of Commons Health Committee (1994)

blood pressure, which is marketed diversely under five different brand names in the UK, and under additional names in different countries.

The only difference between brands is in general the price, unbranded preparations, paracetamol BP rather than the common brand-named Panadol, for example, being cheaper. For clarity, lack of confusion and economy, it is usually best to prescribe by generic name. Most computer systems can do this automatically.

Control and licensing of medicines

In the UK, medicines have to be licensed by the Minister of Health through the Medicines Control Agency before they can be put into general use. There is a strict control over the safety and effectiveness of medicines, monitored by the Medicines Control Agency and the Committee on Safety of Medicines, which is the main government advisory body. The licensing authorities are not, however, legally allowed to consider comparative efficacy or comparative cost (i.e. how well a new medicine works or how much it costs compared with existing treatments). A new medicine might therefore have to be licensed even if it costs more and is less effective than an existing treatment, so long as it has been proved to be safe and to work

better than a placebo (inactive) preparation for the illness in question. Drug licensing will increasingly be carried out across the European Union as a whole rather than separately in the constituent countries, being co-ordinated by the European Medicines Evaluation Agency.

Monitoring medicines

Any unwanted detrimental effects of medicines (adverse drug reactions) often do not become obvious until the medicine is widely used. Drug companies must tell the Medicines Control Agency of any adverse reactions reported to them, and all prescribers and pharmacists are also encouraged to send their findings to the Committee on Safety of Medicines, especially if the medication has been licensed for less than 2 years. These medicines are identified by a black triangle (▼) in all the literature, and they should be used with special care.

Repeat prescribing

Long-term treatment for chronic diseases such as asthma, high blood pressure, heart disease, arthritis, thyroid disorders and diabetes dominates prescribing in general practice. Many patients with these conditions need routine medical review perhaps annually or 6-monthly, but they require a more frequent

renewal of their regular prescriptions because it is generally not desirable to provide a 6 or 12 months supply of medication all at once. About 75% of all GP prescriptions are 'repeats' – the same prescription being issued at (usually monthly) intervals to make sure that the patient has an adequate regular supply without having too great a 'hoard'.

Some of these prescriptions are issued by the doctor when the patient coincidentally consults for some other reason, but most are issued by GP computer systems at the patient's request, without seeing the doctor. A well set-up system should check that the patient is requesting medicines at the right intervals and alert the patient and doctor when a medical review is needed.

Prescribing analyses and cost

The pharmacist dispenses the patient's prescription and then sends it to the Prescription Pricing Authority for payment. The authority collects presenting analysis and cost (PACT) data on all prescriptions throughout the country and feeds back to all practices regular summaries of what has been prescribed. These data are of limited value, but practices can use them as the starting point for an analysis of prescribing habits. The Prescription Pricing Authority data have been widely used to examine variations in prescribing, for example between practices or geographical regions. Some variation is caused by a difference in doctors' prescribing habits, but most is generally considered to be the result of a genuine difference in illness rates in different populations. The Information Services Division (ISD) and the Scottish prescribing analysis (SPA) comprise the Scottish equivalent of this system.

Prescribing/medicines utilisation

- In the UK about a fifth of all medicines are purchased directly without a prescription.
- UK medicines consumption is moderate in comparison with many other countries.
- Increasingly, in UK and elsewhere, health professionals other than doctors (e.g. nurses, pharmacists, chiropractors) are, or will be, legally able to prescribe some medicines.
- Like most governments, the UK carefully controls medicines production through licensing of medicines.
- In the NHS, government agencies also increasingly try to influence and monitor how medicines are used.