be complete for up to 2 weeks.4 A high index of suspicion is therefore needed in the correct clinical setting.

Treatment is debridement and penicillin unless contraindicated. Serial blood smears should be monitored until the organism is cleared from the bloodstream. In theory, exchange transfusion should assist in rapidly removing the baccilli load, and this was achieved in our patient. This form of therapy has not to our knowledge been reported previously. Alternatively, leucopheresis could be utilised. Plasma exchange would not clear the intracellular organisms.

Because the peripheral vascular compromise is a microvascular insult with anterograde vascular occlusion and disseminated coagulopathy, anticoagulant and thrombolytic therapy may be beneficial although the risks of haemorrhage from areas of infarct may be substantial. The haemodynamic features of C. canimorsus sepsis appear to be unlike other forms of severe Gram-negative sepsis in that the systemic blood pressure and systemic vascular resistance tend to be elevated in association with an increased cardiac output. This is in keeping with the pathophysiological process of microvascular insult and anterograde vascular occlusion in this disease. To our knowledge, these haemodynamic findings have not been reported previously.

Patients who survive the acute insult frequently require amputation of ischaemic digits. The timing of amputation will depend on the development of gangrene and its continuous effect on major organ dysfunction. Recognition of infarction of internal organs such as the spleen requires a high index of suspicion in this disease. Radionuclide scanning techniques assisted in the definition of areas of inadequate perfusion in our patient's limbs and internal organs and aided the decision to perform laparotomy when the usual clinical signs were confusing.

Since Butler et al.3 first described this 'new disease' in 1977, approximately 50 cases have been reported in the English literature; since 1987, 6 cases have been identified at Groote Schuur Hospital.

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# The role of culture in primary health care

#### Two case studies

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The purpose of this article is to show the importance of traditional healers in primary health care (PHC) services. Most countries, despite adopting PHC, have not incorporated traditional healers into this service. The article also illustrates how traditional healers fulfil three of Morrell's four PHC objectives, and how incorporating traditional healers into health services will fulfil the fourth objective.

The first contact between a black African patient and health care services usually takes place in the traditional healing system. Therefore health workers should realise that the traditional care system is important if PHC is to succeed. Traditional healers are the most important primary health care service in an African setting. This is highlighted by 2 cases described in the article.

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After the Alma-Ata conference of 1978, most countries adopted the primary health care (PHC) strategy as their universal health care system. PHC is the first and nearest contact between an individual and his health care system (whatever he conceives it to be). Health, on the other hand, is a process of adaptation, the result not of instinct but of an autonomous yet culturally shaped reaction to socially created realities.1 It designates the ability to adapt to changing environments, to growing and ageing, to healing when damaged, to suffering and to peaceful expectation of death. A health care system is a cultural system just as language or religion is.

In every culture, illness, the response to it, individuals experiencing it and treating it, and the social institutions relating to it are all systematically interconnected. Health care in any culture includes patterns of belief about the causes of illness, norms governing the choice and evaluation of treatment, the socially defined and legitimised statuses of hierarchies such as chief or healer, institutions and power relationships. The health care system includes people's beliefs and patterns of behaviour. These behaviours and beliefs are governed by cultural beliefs. Lay people activate their health care by deciding when and whom to consult, whether or not to comply, when to switch between treatment alternatives, whether care is effective and whether they are satisfied with its quality. The prerequisite for the success of primary health care is the concept of community

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participation. If individuals do not understand and do not want to absorb any new health ideas such as PHC, it is impossible for such programmes to succeed.

Knowing a culture's chief sources of power — social, political, mythological, technological — makes it possible to predict its beliefs about the causation of illness and how it treats illness. African communities are diverse. They have a variety of ideas about health and physical care, and they also have a multitude of diet and health practices that are unknown and unacceptable to the Western world. The attitude to scientific medicine and its practitioners also varies greatly. Most black Africans are superstitious, with deep-rooted traditions which make no provisions for modern medicine and its directives; scientific medicine is and has always been a foreign cultural idea. The germ theory is not understood or appreciated. To the African the concept of disease falls into three major categories: (i) those due to magic and evil spirits; (ii) those due to conditions for which causes have been empirically determined; and (iii) those due to psychological phenomena.

The cause of disease is thus the disturbance between the Good and the Evil: the concept of harmony and disharmony. The two following cases highlight the importance of studying cultural beliefs and if possible incorporating them into primary health care.

# Case reports

### Case 1

A 13-year-old boy presented to Mutare Provincial Hospital, Zimbabwe, with a bone protruding from the right lower hand. He had apparently been pricked by a thorn the previous year. Since this seemed trivial to the parents, no one bothered to take him for treatment. However, after a few months a lesion developed around the point of entry of the wound. This seemed unusual to the parents, who took the child to a herbalist. Treatment was given but to no avail. Next they visited a diviner who 'confirmed' bewitchment, for which some sacrifices were made, to no avail. Lastly the nearest health facility was visited, also to no avail. The last resort was to bring the child to the provincial hospital. It was discovered that he had only been taken to a health facility once, by which time the disease had been well advanced.

On examination it was observed that the right radius was protruding from the hand. Radiographs revealed chronic osteomyelitis with total destruction of both radius and ulna. The hand itself was already deformed. The radius was removed without any effort. Function of the hand was already lost.

#### Case 2

A Mutare Provincial Hospital worker brought a 14-year-old relative of hers to the provincial hospital. He had a grossly enlarged left knee joint. According to the relatives' history the ailment had started on its own (kubva pasi in Shona). The swelling had increased during the past year. Many traditional healers, faith healers and herbalists had been visited, but to no avail. The health worker convinced the parents to try the provincial hospital.

On examination there were scarification marks on the leg, proving that the boy had recently visited a herbalist. The lesion was malignant and above-knee amputation of the left leg was necessary.

## Discussion

The traditional healer is the first and nearest contact for the rural black African. Traditional healers are very popular because they provide culturally familiar ways of explaining the cause of ill-health and its relationship to the people's social and supernatural worlds. There is no cultural difference between the traditional healer and his patients. Living in the community and speaking their language makes traditional healers acceptable and accessible. They are therefore the primary health care workers of the rural folk.

In both the above cases the families chose traditional medicine before bringing their patient to Western health services. Despite its shortcomings, traditional medicine offers several advantages, compared with scientific medicine: (i) the whole family is involved in the treatment, and the focus of attention is not only the patient but the reaction of the family and any close relatives; (ii) traditional healing has a closeness, a shared view, informality, and the use of everyday language in consultations; and (iii) traditional healing reinforces and articulates the values of the community to which the healer belongs. Modern doctors are separated from their patients by social class, economic position, specialised education and cultural background.

Visits to traditional healers, however, cause a delay in referring patients to health facilities, which can have tragic results when, as in the above cases, the disease is one that traditional healers cannot cure. The first case is of great importance. Research in Nigeria has shown that osteomyelitis causes many severe deformities and much morbidity. However, most patients present late owing to ignorance, initial recourse to traditional healers and inadequate or expensive orthodox medical care.2 Acute osteomyelitis should be treated promptly to prevent it from becoming chronic. If the first patient's family had sought the right medical help earlier the hand would have been saved. Incorporation of traditional healers into primary health care services will go a long way towards avoiding such cases. As the first contact with the patient, their initial decision determines the prognosis of an ailment. If they were to work hand in hand with modern Western doctors, many patients would be saved from complications of certain ailments. Further incorporation of traditional healers into modern health services would fulfil Morrell's3 fourth objective of primary health care — that PHC should make maximum use of the available manpower and resources to meet the medical needs of the people. Traditional healers already fulfil the other three of these objectives,4 viz. that PHC: (i) should be acceptable to the people; (ii) should be accessible to the people; and (iii) should identify those medical needs of the population which can be prevented, modified or treated.

Since traditional healers live with the patient within the same community they are easily accessible. The cases above show that they are readily accepted by the people. Research has also shown that more than 60% of black African patients visit a traditional healer first before they

come to allopathic medicine.4 Furthermore, living in the same community as their patients, traditional healers know about the disease pattern of that community. If well trained, they can identify diseases that can be prevented or modified, and they are sometimes able to cure some diseases.

Traditional healers are respected in African villages. They are community leaders and members who can encourage community participation. If consulted they can encourage their fellow community members to help prevent and cure many ailments. Health workers should therefore encourage rapport between themselves and traditional healers. Unfortunately, however, many modern health workers scorn traditional healing.

# Conclusion

In a black African setting, traditional healing is the first and nearest contact with a health care system. It is therefore by definition the African's primary health care. Further incorporating traditional healers into modern health care systems would help identify diseases before they reach an advanced stage and the patient becomes disabled or dies because valuable time has been wasted. Traditional healers should also be encouraged to refer patients they are incapable of curing or treating.

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CLINICAL GUIDELINES

# Management of childhood and adolescent asthma

1994 Consensus

South African Childhood Asthma Working Group

Objective. To make recommendations regarding the treatment of chronic asthma to achieve effective control: to emphasise that asthma is a clinical diagnosis; to stress the central role of inflammation in asthma; to recommend alternative agents for practice where certain drugs are not available; and to address new agents that have been introduced for the treatment of asthma.

Options. A new severity grading of mild, moderate and severe asthma is proposed to aid in the selection of medication. This severity assessment uses four features; attack frequency, nocturnal symptom frequency, hospital admissions and peak flow. Since asthma can vary with time, regular reassessment with a view to reassignment of individual grading is necessary.

Outcomes. Goals of effective control strive to ensure that the asthmatic leads a normal life free from symptoms with regular school attendance, restful sleep, normal growth and development, minimal acute attacks and avoidance of hospital admissions.

Evidence, Previous local and international consensus statements.

Benefits, harms, costs. Early diagnosis, accurate grading and effective control reduce morbidity and mortality and will be cost-saving. Pharmaco-economic evaluations of the cost of asthma show that medications per se represent a small percentage of the overall cost of asthma.

Recommendations. Inhaled therapy is preferred, even in young children, as aerosol devices for all ages are available. Mild asthma is treated with intermittent shortacting β-agonists, moderate asthma with regular cromoglycate and severe asthma with regular inhaled steroids. Environmental control, specialist referral and hazardous and unnecessary therapy are also addressed.

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