

EDITORIAL / VAN DIE REDAKSIE

The measles epidemic

Measles continues to be a major cause of morbidity and mortality in South Africa. Annual notifications and deaths have averaged 15 000 and 300 respectively over the last decade. This is almost certainly an underestimate of actual cases.

Schoub and Martin¹ have suggested reasons for two patterns of ongoing measles epidemics in South Africa, viz. crowding and poor socio-economic circumstances affecting young infants and children, and various susceptible groups within populations of older children and adults. The first epidemic pattern accounts for the most common form of measles in this country, and the second pattern is that which occurred in the 1992 epidemic in South Africa. The description of the 1992 measles epidemic as experienced in Cape Town² matches the latter pattern.

An epidemic similar to that in Cape Town occurred in Johannesburg. The epidemic also started in July 1992 and ended in December of the same year. A special surveillance system was established by the Community Health Department of the Johannesburg City Council so that each case notified was followed up and information gathered as to immunisation status, type of immunisation received and from which institution. The surveillance continued until the end of January 1993. Of the 596 cases notified, 48% had been immunised, according to information obtained from the parent or guardian. Some 28% were unsure of immunisation status and 24% were not immunised. At best, therefore, 76% could have been immunised (48% + 28%). This figure compares well with the figure of 75% quoted for the southern Transvaal before initiation of the measles immunisation strategy.³ Of the 288 (48%) who were sure they had been immunised, 78% had received their immunisation through local authorities. MMR accounted for 16% of immunisations. Most of the cases in Johannesburg occurred after the age of 5 years (81%). Measles notifications received by the Epidemiology Directorate of the Department of National Health and Population Development, up to and including 22 July 1992, showed that 68% of cases occurred below the age of 5 years.⁴ Therefore the epidemics in Johannesburg and Cape Town were different from those usually seen in this country, but occurred concurrently as a result of the national accumulation of a sufficient number of susceptibles in older children. This accumulation of susceptibles was most likely due to a combination of non-vaccination and primary vaccine failure. Schoub and Martin¹ point out two lessons that can be learnt from this recent epidemic: firstly, that account must be taken of the two epidemiological patterns of measles in

South Africa in the design of a national measles strategy and, secondly, that extensive (over 90%) measles vaccination coverage is needed to prevent outbreaks of measles.

The Department of National Health and Population Development has devised an appropriately flexible and practical strategy involving a two-dose vaccination schedule and an approach to measles outbreak control in institutions.^{5,7} A three-dose vaccine strategy has also been proposed,⁸ to be implemented in any child immunised under 8 months of age. Until further clarification by the World Health Organisation, immunisation with high-titre strains is not advisable.

To further the aims of the measles strategy, health authorities in major urban areas should seriously consider the introduction of by-laws that allow entry of children into school only if documentary proof of immunisation is produced. Where such proof is lacking, a further dose of measles and diphtheria/tetanus vaccine should be mandatory.

The objectives of this initiative are to develop successful approaches to ensure appropriate immunisation of children, to improve monitoring, to make vaccination as widely available and accessible as possible, and to eliminate missed opportunities for vaccination of eligible children. National legislation for compulsory vaccination needs to be reconsidered.

S. NAIDOO

City Health Department
Johannesburg

K. MEYERS

Department of Paediatrics
Johannesburg Hospital

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The recruitment of blood donors from the black population of South Africa

Approximately 1 million blood donations are collected annually from voluntary unpaid blood donors in South Africa.¹ Of the blood donors, 15% are 'blacks', who constitute 70% of the total population, and 73% are 'whites', who make up 16% of the total population: the proportions of donors who are Asian (5%) and of mixed descent (7%) do not depart widely from their representation in the whole population.^{1,2} The belief that black Africans are unwilling to donate blood is widespread, not only in South Africa:

for example, a relative of Albert Schweitzer wrote, 'no self-respecting village African can be expected to give his blood to an unknown impersonal blood bank'.³ Unbelievers in this self-fulfilling prophecy have shown many times that where there are culturally appropriate donor recruitment campaigns, black Africans are no more unwilling to donate blood than anyone else. A hospital-based blood transfusion service serving 700 hospital beds in northern Nigeria recruited over 15 000 voluntary or replacement donors per year (personal

EDITORIAL / VAN DIE REDAKSIE

experience, A.F.F.). In Namibia in 1988, before independence, 77% of 16 000 blood donors were white, 13% were of mixed descent and 10% were black, whereas 95% of blood recipients were black. Since independence, there has been expansion of blood transfusion services in Oshakati and northern Namibia generally and an increase in the proportion of black blood donors to 44% of nearly 16 000 donors in the first 9 months of 1993 (Dr K. E. J. Seidel — personal communication). With political enfranchisement, it may be anticipated that many more black South Africans will be willing to donate their blood voluntarily, and in fact will insist on the right to donate as a measure of civic responsibility.

The broadening of the base of the blood donor population to make it representative of the total population of South Africa will be most advantageous. Firstly, the existing donor base is insufficient to provide an adequate supply of blood in the future. Secondly, because of the different distribution of ABO blood groups in whites (group B 9%, group A 41%) and in blacks (group B 20%, group A 29%) (records of the South African Blood Transfusion Service), there are insufficient units of group B to meet the needs of recipients, whose ethnic composition reflects that of the general population. Thirdly, the present relative excess of white donors causes a surplus of group A blood, which uneconomically has to be discarded unused. Fourthly, rates of allo-immunisation are likely to be reduced. A study of multitransfused black patients with sickle-cell disease in California showed that 30% had become allo-immunised against red cell antigens, and 11% had suffered delayed transfusion reactions, contrasting with 5% allo-immunisation in multitransfused white patients.^{4,5} Ninety per cent of the blood donors were white, and the high rate of allo-immunisation in the black patients was ascribed to the lack of phenotypic compatibility between donors and recipients. Antibodies against K, E, C and Jk^b antigens accounted for 82% of the allo-antibodies, and there were significant differences in the distributions of these red cell phenotypes between donors and recipients. In South Africa, sickle-cell disease is not common, but many patients require multiple transfusions: increased recruitment of black blood donors would allow for much improved chances of finding antigen-compatible blood for multitransfused patients.

All units of blood in South Africa are screened for markers of infection by syphilis, HIV-1, HIV-2, hepatitis B virus and hepatitis C virus.⁶ It is probably true that blood transfusion is safer now than it has ever been and that the risk of infection in South Africa has been reduced to what is at present the technically possible minimum. Despite the universal testing of blood donors for antibodies against HIV, there remains a residual risk of infection by blood transfusion as a result of: (i) some infectious donors being in the window between acquiring the infection and seroconversion; (ii) human error; and (iii) the limitations of sensitivity of the tests. The residual risk has been calculated to be currently most likely about 2 per 100 000 donations in South Africa, or about 16 units per annum in the whole country.⁷ One important calculation was of a six-fold higher risk of infection from first-time donors than from repeat donors. At the present stage of the epidemic, seroprevalence of HIV is highest in the black population, and is doubling approximately every 12 months.⁸ The residual risk of HIV infection is calculated to be highest from black blood donors.⁹ We believe, however, that any attempt to exclude people from the blood donor pool merely on the grounds of race is ethically wholly unacceptable, unlikely to cause any significant decline in the residual risk of HIV infection, and likely to be counterproductive through restricting the availability of blood.

Although we reject a policy of excluding blacks as

blood donors, we do not believe that those who propose such a policy, in the belief that it would protect patients, are necessarily racists. It would be utterly distressing to see in South Africa a witch-hunt conducted by the press and abetted by lawyers, similar to that in France which led to the conviction (in conflict with all evidence) and imprisonment of a blood transfusionist who did more than anyone to render safe the supply of factor VIII.¹⁰

How can the residual risk of transmission of HIV by blood transfusion be reduced in the face of increasing seroprevalence in all population groups in South Africa? Eight strategies have been proposed on the basis of known risk factors for HIV transmission in all South African blood donors.⁷ We would like to emphasise: (i) the cardinal principle that all blood donors are unremunerated volunteers; (ii) the importance of education of potential blood donors, especially of the young; (iii) the need to develop systems for confidential self-exclusion by potential donors, both before and after donation;¹¹ (iv) the necessity for recruitment of first-time donors in order to continue the transfusion services, provided their blood is used for the preparation of virus-inactivated blood components and laboratory reagents only; (v) the recognition of subgroups of the general population who have significantly higher seroprevalence rates than the general population (examples from sub-Saharan Africa include the uniformed services and long-distance lorry drivers) and the cessation of active donor recruitment from these subgroups; and (vi) the appropriate use of blood and blood products. Too often blood is transfused when there is no adequate clinical indication.¹² In the future, a patient who has been infected by HIV through blood transfusion could have a case against the clinician if the transfusion was not necessary, and not against the blood transfusion service when it has proceeded correctly.

A. F. FLEMING

Department of Haematology
 School of Pathology
 SAIMR and University of the Witwatersrand
 Johannesburg

F. SITAS

National Cancer Registry
 School of Pathology
 SAIMR and University of the Witwatersrand
 Johannesburg

M. STEINBERG

National AIDS Research Programme
 Medical Research Council
 Johannesburg

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EDITORIAL / VAN DIE REDAKSIE

Reporting occupational disease

Workers who develop disabling work-related conditions depend upon medical practitioners to set in train the process which leads to compensation. Most general practitioners and specialists are familiar with the reporting system for accidents at work. The accident is immediately and obviously related to the victim's occupation and claims submitted by doctors provide reliable data for calculating the frequency, severity and distribution of accidents. The same cannot be said for occupational diseases.

The exposure responsible for newly diagnosed occupational disease is usually, but not always, remote in time and place, in some now defunct factory where the patient worked as a youngster. Worse still, the patient may never have been given any information about the hazards of the workplace. To complete the picture many doctors are not aware of the prevalence or the importance of work-related disease and are reluctant to complete lengthy and not very user-friendly forms, and may think exclusively in terms of dust diseases of the lungs.

The Occupational Diseases in Mines and Works Act (Act No. 78 of 1973 as amended) requires a medical practitioner who examines or treats a person who has worked at a mine or works and who may have a compensable disease to report the facts to the Director of the Medical Bureau for Occupational Diseases (MBOD). The Act further requires that the attending doctor shall arrange for the cardiorespiratory organs of a deceased miner or ex-miner to be sent to the MBOD.

The new occupational health and safety legislation which will replace the Machinery and Occupational Safety Act (Act No. 6 of 1983) will contain provisions obliging doctors to report work-related disease to the Chief Inspector of Factories.

With the co-operation and assistance of a large number of medical practitioners about 10 000 cases of occupational disease are reported to the MBOD each year for review by the Certification Committee and between 3 000 and 4 000 sets of cardiorespiratory organs are examined. Unfortunately the sample is skewed. White miners are over-represented because they and their relations are well informed about their right to benefit examinations and know that postmortem compensation is paid if evidence of occupational disease is found. Black miners reported to the MBOD during life are mostly in service on the large mines. There is good evidence that reporting is incomplete from works and from small mines. Cardiorespiratory organs are received almost exclusively from large mines. As a result it is those to whom compensation would be of most benefit who are penalised — the migrant labourer with work-related disability who has returned to his rural home.

The Workmen's Compensation Act (Act No. 30 of 1941) does not require doctors to report either accidents at work or occupational disease. An enquiry carried out in the Eastern Transvaal established beyond reasonable doubt that neither doctors nor employers comply with the provisions of the compensation legislation in an appreciable proportion of cases. As a result there is not only serious hardship for the worker but the incentive to employers to prevent injury and disease in the workplace is considerably diminished and public statements about working conditions are often erroneous.

The primary obligation of a medical practitioner to a patient is to arrive at the correct diagnosis and to manage the problem in a holistic way. Clearly, diagnosis and management cannot be said to be expert or complete if the origin of disease or injury in the workplace goes unnoticed or the appropriate compensation is not, in due course, paid to the worker. Secondly, doctors

have a social duty to assist the authorities to regulate workplace conditions in order to ensure that workers remain healthy and able to provide for their families.

This country has a long history of neglect in the field of occupational health in which doctors have played some part through their failure to meet their legal or social obligations. In any new social order it will be unacceptable for medical practitioners to continue to overlook the aetiology of disease in workers at risk or to ignore their duty to ensure that workers entitled to compensation get it.

The Occupational Diseases in Mines and Works Act requires — in terms of Section 33.(1): 'whenever a medical practitioner in the Republic considers or suspects that any person medically examined or treated by him, who has to his knowledge worked at a mine or works, or who he believes on reasonable grounds to have so worked, is suffering from a compensable disease, such practitioner shall forthwith communicate to the director his findings at the examination, and shall on demand by the director furnish such further information at his disposal in regard to the examination or the health of such person as the director may require.'

In terms of Section 34.(2): 'A medical practitioner in the Republic who attended a deceased person at the time of or immediately before his death, or has opened the body of a deceased person, and who knows or has reason to believe that such person worked at a mine or works, shall remove the cardiorespiratory organs and any prescribed organs or parts of the body of the deceased and shall send such organs and parts of the body to the prescribed place or, if no place has been prescribed, to the bureau or to any other place specified by the director, in accordance with the prescribed procedure or, if no procedure has been prescribed, in accordance with such instructions as may be issued by the director.'

The Workmen's Compensation Act deals with occupational diseases as if they were accidents. The new Compensation for Occupational Injuries and Diseases Act (Act No. 130 of 1993), which will come into force on 1 March 1994, deals with occupational diseases in Chapter VII. Section 68 requires that:

'1. An employee shall as soon as possible after the commencement of a disease referred to in section 65(1) give written notice thereof to his employer, or to the employer where he was last employed, and he may also give written notice of the said disease in the prescribed manner to the commissioner.

'2. An employer shall within 14 days after having so received notice or having learned in some other way that an employee has contracted a disease referred to in section 65(1), report such disease in the prescribed manner to the commissioner or mutual association concerned, as the case may be, irrespective of whether he may be of the opinion that the employee did not contract such disease in his employ or in the employ of a previous employer.

'3. An employer who fails to comply with subsection (2) shall be guilty of an offence.'

Section 25 of the new Occupational Health and Safety Act (Act No. 85 of 1993), which replaced the Machinery and Occupational Safety Act on 1 January 1994, requires that 'every medical practitioner who examines or treats a person for an illness which he believes arose out of that person's employment, shall within the prescribed period and in the prescribed manner report the case to the person's employer and to the chief inspector'.

EDITORIAL / VAN DIE REDAKSIE

In summary, and in order to make the position of all medical practitioners perfectly clear, the law has been changed to ensure that there is a legal obligation to report occupational diseases. Failure to comply with the newly enacted provisions of the Occupational Health and Safety Act constitutes an offence in terms of the Act, and an assertion by way of defence that the medical practitioner was unaware of the person's occupational exposure, or of the association between the exposure and the health effects, may easily involve a practitioner in further legal proceedings in the courts or before the

South African Medical and Dental Council.

The law has been changed to ensure that occupational diseases occupy a much more important place in clinical practice, and that index cases are promptly reported to enable workplace conditions to be investigated and health risks of workers minimised.

C. F. SLABBER
 J. C. A. DAVIES

Department of National Health
 and Population Development

Technological advances in regional anaesthesia

New local anaesthetic delivery methods include administration via the transdermal, topical, and intra-articular routes, as well as the use of timed-release preparations. Transdermal drug systems deliver a drug to the skin surface at a rate less than the maximum rate of transit through the skin.¹ The drug is thus driven down a concentration gradient towards the patient. Local anaesthetics administered transdermally may permit painless intravenous or intramuscular needle insertion, or superficial confined surgical procedures.² EMLA cream, a eutectic mixture of lignocaine and prilocaine, can be applied to the dorsum of the hand to provide local anaesthesia for venepuncture (especially in children).³ A transdermally applicable 10% lignocaine gel mixture with 3% glycyrrhetic acid monohemiphthlate disodium as an absorption promoter, is currently undergoing testing.³ Transdermal drug delivery of ionised drugs can be enhanced by iontophoresis, whereby transfer can be facilitated by a small current across two electrodes.¹ Iontophoresis of lignocaine has been used for superficial surgical procedures.⁴ Lignocaine aerosol provides effective postoperative analgesia when sprayed into herniorrhaphy and tonsillectomy wounds.⁵ Intra-articular local anaesthetics can be used to provide postoperative analgesia. Bupivacaine 0,5% has mostly been used in arthroscopic knee surgery.⁶

For prolonged regional analgesia, application of a timed-release local anaesthetic preparation adjacent to nerves could be a useful alternative to catheter infusions or neurolytic blocks. The effect of local anaesthetics and opioids can be prolonged by incorporating them in a variety of encapsulation matrices.⁷ Liposomal encapsulation permits the delivery of relatively large concentrations of a drug in a form that is sequestered and slowly released into the local biophase.⁷ Liposomal encapsulation of lignocaine has been used to prolong epidural blockade.⁸ Spinal local anaesthesia (in animal models) can be prolonged by the placing of the local anaesthetic in a lipid vehicle known as iophendylate. This results in the slow release of the drug from the lipid depot.^{9,10} Biodegradable polyanhydride polymers have also been found to be effective in prolonging nerve blockade with local anaesthetics.^{11,12} A new class of analgesic drug carriers, the transfersomes, can penetrate rapidly down hydration gradients through the intact dermis, to reach the cutis and the subcutis, thereby affecting nociceptors and other nerve endings.¹³ Transfersomes are mainly vesicular particles. Transfersomal drug carriers can accommodate hydrophilic drugs (in the aqueous interior of the carrier), or lipophilic drugs (in the enveloping lipid bilayer). With transfersomes, complete local anaesthesia lasting more than 4 hours can be obtained within 30 minutes with tetracaine, or after 90 minutes with lignocaine.¹³ The use of transfersomes will have far-reaching consequences for local pain therapy.

Adjuvants to local anaesthetics include potassium channel blockers (such as the tetra-ethyl ammonium ion and 3-4-diaminopyridine). These potentiate the impulse inhibition brought about by lignocaine and bupivacaine.¹⁴ Another adjuvant is the steroidal alkaloid, veratridine, which holds sodium channels open instead of blocking them.^{15,16} Veratridine appears preferentially to block unmyelinated C-fibres, though it can inhibit motor function.^{14,17} As both α_1 - and α_2 -agonists prolong spinal anaesthesia, an ideal adjuvant may be a mixed α -agonist.¹⁸

Catheters have been implanted into perivascular sheaths enabling the use of continuous infusions of a local anaesthetic. Catheters can also be implanted into the epidural and intrathecal spaces. Local anaesthetics and opioids can be given as intermittent boluses via temporary epidural catheters, or constant infusion pumps.^{19,20} Permanent implanted catheters, however, have advantages in terms of sterility, comfort and freedom of movement. A port is required for percutaneous access.¹⁹ The port has a resealable membrane capable of withstanding percutaneous injections. This port can be used for intermittent opioid administration, or connected to an external pump when the patient might have a life expectancy of several months.²¹ Occasionally such a system has been used for long-term interpleural analgesia.²² The insertion of an implantable infusion device is indicated in patients with long life expectancy. The device is implanted within the subcutaneous tissues of the anterior abdominal wall, or subpectorally, and the catheter sited in the epidural or intrathecal spaces. Implanted pumps consist of a reservoir system and a pump mechanism. The pump mechanism can be driven either internally (by means of a lithium battery), externally (with an induction device), or mechanically (i.e. patient-operated).¹⁹

Patient-controlled epidural analgesia (PCEA) has proved a viable alternative to continuous epidural analgesia. PCEA with local anaesthetic (e.g. bupivacaine 0,125%) plus an opioid (e.g. fentanyl 1 μ g/ml) has been used successfully during labour.¹⁵ PCEA has also proved useful in the treatment of chronic cancer pain.²³

The use of microcatheters (28- or 32-gauge) in the intrathecal space provides a route of administration for drugs with additive or synergistic effects (e.g. local anaesthetics, opioids, and α_2 -agonists).²⁴ Microcatheters await the development of pumps that can produce sufficient pressure to deliver continuous infusions of drugs.

Smaller spinal needles have been developed to reduce post-dural puncture headaches. The Whitacre (25-gauge) and Sprotte (24-gauge) spinal needles are solid-tip pencil-point needles with lateral eyes (to spread rather than cut dural fibres).²⁵ They are both associated with low incidences of post-dural puncture headaches (0,02 - 2%).^{25,26} Other small-gauge spinal needles include the 26-gauge Portex and 27-gauge Quincke needles.²⁷

EDITORIAL / VAN DIE REDAKSIE

Epidural-spinal needles combine the speed and reliability of spinal anaesthesia with the advantages of an epidural catheter technique.²⁸ A dual 18- or 22-gauge epidural needle allows for the administration of an intrathecal dose of a local anaesthetic and/or an opioid at the same time as the epidural catheter is inserted.²⁸

New local anaesthetic delivery routes, new adjuvants to local anaesthetic drugs, spinal implants, PCEA, and the technical advances in spinal microcatheters and spinal needles are evidence of the technological advancement of regional anaesthesia.

E. A. SHIPTON

Department of Anaesthesia
Hillbrow Hospital and
University of the Witwatersrand
Johannesburg

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Quality in health care

Questioning the quality of care has not been part of the ethos of health care in this country. Even if quality issues were raised, health care providers seldom had the resources or the inclination to do anything really constructive to change matters. Health care providers often believe that they are delivering the highest quality health care that they can under the circumstances, and until recently doctors were rarely challenged about the quality of medical care. But times are changing. Patients, governments and third-party payers are challenging medical decisions as never before. The efficacy, cost-efficiency and necessity of many health interventions are being questioned. The era of accountability and consumerism in health care has arrived. And it is here to stay.

There is no single definition of quality that will suit all contexts and many such definitions are biased in favour of the conditions found in developed countries.^{1,2} Quality health care can be judged by the standard of facilities, technical competence, interpersonal relations, continuity, safety and amenities.² The relative importance of the dimensions of quality will vary from context to context, and within the same context at different times. Quality is neither a static nor a unidimensional concept.

Another definition highlights six dimensions that can be used to assess quality of health care:³ (i) appropriateness; (ii) equity; (iii) accessibility; (iv) effectiveness; (v) acceptability; and (vi) efficiency.

Although this is only one definition an attempt has been made to operationalise those dimensions. The following criteria have been formulated in this regard:

1. **Appropriateness.** A judgement on the correctness and fundamental importance of a procedure, and an individual or community's need for it.
2. **Equity.** A consideration of the availability of the service or resource to the majority of the population.
3. **Accessibility.** A judgement on the availability of the service and/or procedure in respect of time, distance, gender and cultural matters.
4. **Effectiveness.** A measure of the benefit resulting from an intervention or service. This form of evaluation considers both the efficacy of an intervention and its acceptance by those to whom it is offered, i.e. does the procedure do more good than harm? The achievement of intended outcomes (health, economic or process) is measured for the individual/community.
5. **Acceptability.** Achievement of consensus on the content, which must satisfy the reasonable expectations of patients, care-givers, funders and the community.
6. **Efficiency.** A consideration of how to achieve the maximum increment in health benefit possible with a fixed amount of health resources. An economic evaluation that answers the question, 'Is a certain practice worth while, relative to others that are possible with the same resources?' The purpose of this is to obtain maximal benefit and not dissipate resources.

EDITORIAL / VAN DIE REDAKSIE

Assessments of quality are complex and often dependent on the perspective of the observer. Originally, the concept of quality assurance was at the centre of all quality programmes. It involved the setting of standards, their monitoring and evaluation followed by the indicated corrective action, i.e. the classic triad of a value system, an appraisal system and a response system.

This has grown with time into a new paradigm of continuous quality improvement (CQI), also called total quality management (TQM). CQI is a pro-active process in which a series of strategies is designed to prevent quality-related problems rather than measure them after they occur. It is aimed at taking prospective corrective action to enhance medical care rather than retrospective and possibly punitive corrective action.

CQI as a philosophy reviews the relationship between quality and cost. It suggests that improvement in quality leads to lower cost by reducing waste, re-work and unnecessary complexity. It emphasises the deeply ingrained principle in medicine of continual learning to improve care. CQI does not focus on standards or minimums, although these have their place, but rather on improved quality and targets.

Provision of the highest quality of care with the available resources is not simply a matter of improving system-wide or macro-level efficiency. Practitioners and institutions at the micro level are the logical focus of efforts to improve quality.⁴

The medical profession's involvement in quality management will take the form of a range of activities: peer review, medical audit, participation in accreditation programmes, clinical guidelines and participation in research relating to measurement of outcomes. The recent groundswell of international interest in quality management in health care has now reached South Africa, so as

the country moves towards a democratic future the focus on equity and efficiency, two quality management activities, will become increasingly prominent.

Quality management programmes in South Africa are a series of dynamic processes by which the population can be assured that everything is being done to provide them with the best quality health care within the available resources.

Two initiatives in the quality management process are included in this issue of the *SAMJ*: the supplement *Quality Health Care in South Africa* and the Special Article 'The South African Pilot Hospital Accreditation Programme: Part I. The process'.

These are among the first steps of a national strategy on quality assurance. It is only by developing such a strategy that the South African health services will have the capacity to monitor progress towards a truly equitable health service accessible to all citizens.

In order to co-ordinate quality activities the National Co-ordinating Committee on Quality in Health was established. The Committee plans to establish priorities for collaborative quality activities, identify resources and liaise internationally. Any health care group interested in becoming involved in quality management activities is welcome to join this initiative.

D. GREEN

V. J. PINKNEY-ATKINSON

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SPECIAL ARTICLE

The South African Pilot Hospital Accreditation Programme

Part I. The process

The quality movement in health care has generated renewed interest over the past decade. Whereas the various professions have used it as a regulatory mechanism, other role players in the health industry have a variety of reasons for being interested in this movement.

The providers of health care (health managers) have a legal and ethical claim to uphold the quality of care to patients, whereas the third-party funders add a cost-effective dimension to the quality process. Patients have become more knowledgeable and assertive about health care received and require accountability from both the professional and the health service provider.

In addition the quality movement provides health managers with a mechanism to assist in ensuring that health services become increasingly acceptable, accessible, equitable and affordable to all South Africa's people. Academic interest in the quality process, as a consequence of the above, has led to a more scientific and systematic approach to health care evaluation.

In South Africa it is generally accepted that a high standard of professional training is, on its own, not sufficient to ensure quality of service. There are few formal mechanisms to define and monitor performance standards for individual private and public hospitals. Although hospitals are subject to statutory inspections in respect of safety and physical environments, and

national bodies responsible for the training of professional staff have inspected training posts and their incumbents, these mechanisms are of limited value in assessing overall effectiveness.

In countries such as the UK, clinicians' interest in defining and monitoring standards in clinical practice, as well as in service organisations, has increased. This reflects a willingness to become involved in management as well as maintain a degree of professional self-direction when faced with an increasingly inquisitive public and diminishing resources with which to administer health services.¹

The quality of patient care is affected by the abilities of an organisation and its members. These abilities are related to the organisation's structures and processes and its members' training, experience and other attributes such as judgement, integrity and technical expertise. Within the context of health care organisations, professionals and other individuals responsible for patient activities include, e.g. practitioners, managerial and support staff.

There is now a growing awareness that quality patient care depends not only on the performance of individuals but also on collaborative efforts and integrated managerial and clinical processes that must function well if care objectives are to be achieved.

The emphasis on how effectively organisations func-