

Professor Daniel Philip Barnard

Emeritus Professor: Medical University of Southern Africa (Sefako Makgotho Hospital)*

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Born and bred in Gansbaai where his father was the School Principal, preacher, medicine man, Sheriff, reconstructor of the little fishermans' village and the representative of various State Departments.

At the end of 1945, at the age of sixteen, Daan Barnard passed Matric at the Napier High School, where he also excelled in rugby and athletics.

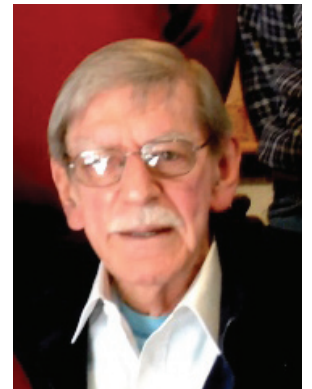
Due to several reasons, tertiary education for Daan was not possible at that stage and at the age of 17 he joined the SAP. After completion of a six month training course at the SAP Training College in Pretoria, he was stationed at Marshall Square, Johannesburg with a net monthly income of eight pounds. He soon realised that he was on the wrong track and eventually bought his discharge for 20 pounds, which he had to borrow from his father (a considerable amount of money those days).

At the beginning of 1948 he registered as a student at the Teachers Training College, Paarl, and completed a three year course for a Higher Teachers Diploma, which he obtained with distinction. During his studies he was the Class Representative for all three years, served on the SRC, was leader of the College orchestra, a play actor and also played a good game of tennis and of rugby (with Springboks Buks Marais and Chum Osche).

1951-1953. Teacher in handcraft-wood and metal at various schools in Kimberley and also acted as Honorary Secretary of the SA Teachers Association, Northern Cape Division. He was one of the first teachers to integrate the teaching of basic principles of woodwork with the production of useful items (in this case toys) for which he was highly praised. It was here, in Kimberley, that he married Gerda Dreyer, a fellow student and ex-lkey, who qualified in the teaching of hard of hearing and speech defective children.

In 1953 he was accepted for registration as a student for the BDS degree at The University of the Witwatersrand, Johannesburg, on condition he passed mathematics at matric level, a subject that he did not have at school. In a do it yourself course of nine months, he managed to pass

the maths that covered the syllabus Std 7 to Std10 and triumphantly registered as a student in the Dental Faculty, beginning of 1954. Fortunately his wife, who was now the breadwinner, managed to secure an appointment at Spes Bona School in Braamfontein, which had special facilities for her category of teaching and was also conveniently situated between the Oral and Dental Hospital and Medical School at that time.



Professor Daan Barnard

During his studies at Wits he served on the Students Dental Council as Treasurer and was the Class Representative in the fourth and final years. He also took part in the annual Dental Rugby intervarsity against Tuks. In the third year of study, Daantjie, as he was known amongst his fellow students, was acknowledged by the Prosthetic Department for a dental set-up he successfully completed for a patient with a prominent pre-maxilla, a case which the full time technicians could not see their way through. Surgery had been considered the only alternative.

A self-trained pianist, he found a way to augment their income by playing cocktail music at various entertainment localities, *inter alia*, the old Victoria Hotel in the city and the Bryanston Country Club. An almost unprecedented incident for those days that he'll never forget was the occasion when one of the senior lecturers, later to become Dean of the Faculty, invited Daan and his wife over for a drink, with the request that he offer entertainment on the piano. On his departure that evening the doctor's words were "If you write your exam with the same excellence that you play the piano, you'll definitely pass with distinction". He never got the distinction but passed comfortably and at the same time passed a piano test for the early morning programme on Springbok Radio.

Daantjie, apart from being a good dental technician, was a competent motor mechanic. He fixed and tuned motorcars for his fellow students and supercharged his own Morris Minor from a slow side valve to a lively overhead engine with a four branch exhaust system.

*This tribute prepared by Piet Botha and Bill Evans, long time colleagues of Daantjie, drawing from his CV.

Gerda and Daan welcomed their first child in June of the Final Year, a joyful occasion but one that made the road to the final examination extremely tough.

After qualifying for the BDS (Wits) degree, the now Dr Barnard bought a practice from the late John Brice, ex Wits, in Aliwal North where he practised for ten years. During these years Daan played a prominent role in the community with entertainment and charity work on the piano and electric organ. During a holiday in Margate he also won a talent competition with his performance on the Hammond Organ. He started playing golf and progressed to a single handicap golfer in a relatively short period of time. Dr Barnard was a member of the Executive Committee and Treasurer of the Golf Club, (founded in 1989) and on occasion, the Captain. He was also appointed as an Honorary Vice President of the Eastern Cape branch of the Dental Association of South Africa in Port Elizabeth. His wife, Gerda, apart from being a superb housewife and mother, applied her knowledge as a Speech Therapist to cure children as well as adults, especially stutterers, who came to her for help. She was also called upon to be an actor/Producer for the local Dramatic Society.

In his practice he was deeply interested in methods of pain, stress and anxiety control and made use of the so called white sound and his own recorded music, via earphones that could be controlled by the patient, with varying success. This was also the beginning of his lifetime research work on the pharmacology and local and systemic adverse reactions of local anaesthetic injections, a factor that was of concern to dental and medical practitioners worldwide.

1969-1979. Daan held appointment as a dentist for the Sasol Medical Fund and played golf at the Emuleni and Maccavlei Golf Clubs.

1970. Prof Barnard's academic career started with his appointment as Senior Lecturer in the Department of Maxillo-Facial and Oral Surgery in the Faculty of Dentistry at the University of Pretoria where his responsibilities included the teaching and clinical training of pre-graduate students in minor oral surgery, the pharmacology and techniques of administration of local anaesthesia, asepsis and sterility and operating theatre procedures and techniques. He also lectured to the Oral Hygiene students on dental procedures and therapeutics.

Dr Barnard was a full-time member of the Faculty Board, the Dean of Students, acted as Head of Department on several occasions and was granted Masters degree status by the Faculty Board. He was a member of the SA Dental Association and President of the Odontological Society (Northern Transvaal branch). For three successive years he arranged and conducted, with the support of the Surgeon General and the Fourth Year students, a skeleton emergency dental service in Pondoland, Transkei, meeting the oral health needs of hundreds of patients at a time.

In 1976 Dr Barnard was appointed Chief Dentist for the Department of Health and Population Development, on condition that he retained his lecture input at UP and Medunsa (Sefako Makgotho Hospital). He was also granted permission to carry on with his research on local anaesthesia, which he had started at the UP Dental School.



Honorary membership of the Pretos Ortodontic Studyclub being bestowed on Daan by Pieter Stapelberg



Prof Daan with members of the Pretos Study Club



Daan and Gerda Barnard

An enormous challenge that waited for him in his new office was the implementation of a National Dental Health Policy, formulated by his new boss, Prof Leon Taljaard. The objective of this policy was to make comprehensive dental services available to all the peoples of RSA.

This demanded his personal attention to establish facilities in order to render dental services in all hospitals (rural hospitals and clinics to be a priority), mental institutions, all prisons, old age homes and all those people in need that could not afford or were not within reach of clinical services... a tremendous task under the ruling laws at the time. To run such clinics, manpower was critically necessary and for that reason, a new category of dental clinicians was introduced. Dental Therapists, following a two year licentiate course, were trained to render basic dental services and pain relief. Oral hygienists were trained and appointed to do very necessary preventive and educational dental services, especially amongst children. The private sector became involved by introducing district dentists and specialists on a part time basis.

The Universities with Dental Faculties had to maintain teaching hospitals with their clinical service components, and soon encountered the problem of having to allocate additional sums to carry the costs of the clinical output and maintenance of their Oral and Dental Teaching Hospitals, leading to unhappiness amongst the other Faculties. This was not supposed to be part of the function of a University. Eventually the Department of Health was approached to find a way in which the service rendering component of the Dental Faculties could be taken over by a State authority. After many negotiations, Wits Dental Faculty was the first to agree to merge their academic component with the service rendering component which was then fully administered and financed by the Dental Branch of State Health and which included the cost of expanding existing dental facilities. Joint posts for academic personnel were introduced on a voluntary basis.

Dr Barnard was now promoted to the position of Director of Dental Health Services, and was commissioned to supervise the functioning of dental teaching hospitals. He found it exciting to be so closely involved with his Alma Mater. He served on both the Joint Advisory and Selection Committee and the Building and Maintenance Committee of Wits University. During this period Dr Barnard was also actively involved in the take-over of all the Provincial school and clinical dental services which created a position in which all community dental services were under one blanket.

He was also a member of the Joint Advisory and Selection Committees of the Universities of Western Cape, Durban Westville and Medunsa (Sefako Makgotho Hospital) and held appointment to the Planning Advisory Committee concerning the dental hospitals for the latter two institutions. He also served on the Steering Committees involved in the merging of the dental hospitals of the Universities of Stellenbosch and Western Cape.

Other committees of which he was an active member:

- The sub-Committee (Dental) of the General Advisory Committee on Health Matters
- The Committee for Preventive Dentistry of the SA Dental Association of South Africa. He was the first person who handed a cheque of State origin to the Association in favour of the National Dental Health Week.
- The Standing Committee on Dentistry of the SA Bureau of Standards, representing the Association and the Department of Health. He was a pioneer and is still active in establishing and maintaining a high standard of quality and safety for local anaesthetic practice in this country.
- Member of the Executive Committee of the Pretoria Branch of the Association, responsible for staging scientific programmes at meetings.
- The SA Society for Maxillo Facial and Oral Surgeons.

He was the first full time government official to be an active member of the SA Division of the International Association for Dental Research, which he maintained for twenty years. His membership gave a boost to Community Dentistry, a new academic development introduced by the Department of Health, and who delivered ever-increasing contributions to the Annual Congresses of the IADR.

Dr Barnard held membership in numerous professional Societies:

- The subgroup, Pharmacology, Therapeutics and Toxicology
- A founder member of the Association for Maxillo-Facial Radiology.
- The International Association for Forensic Odonto-Stomatology and founder member of the SA Division. In his position as Chief Dentist, he instituted, with the support of the SAP, a National Dental Forensic Service by creating joint posts at the different dental faculties for this purpose.

Concurrent with his activities in the Health Department, he proceeded with part time teaching and lecturing to dental auxiliaries and dental students and pursued his research on local anaesthesia.

In 1983 Daan Barnard was appointed as Associate Professor in the Department of Oral Surgery at the Medical University of Southern Africa (Sefako Makgotho Hospital) where he became a full member of Senate and served on seven different Faculty and Hospital Committees.

He also held an honorary appointment in the Department of Pharmacology and Therapeutics in the Medical Faculty with the purpose of coordinating the Pharmacology curriculum for dental and dental therapy students, lectured to pre and post graduate Medical students and simultaneously found a valuable boost for his research into local anaesthesia.

In the process he became a member of:

- The SA Pharmacology Society where he delivered papers
- The SA Neuroscience Group.
- The International Brain Research Organisation

After a national survey to determine the use of and problems related to local anaesthetic practice in the RSA, and having completed international literature scans and several clinical investigations, he decided to compile a book in a popular/scientific format that could be used as a reference by general dental and medical practitioners as well as students, making it a valuable contribution to his profession instead of a thesis that normally settles on a library shelf.

In 1987 he requested a transfer to the Department of Oral Pathology and Biology and became the Head of the Oral Biology Division, which he promoted with enthusiasm. He continued with teaching and research on local anaesthesia. During this time he was called upon by the Medical and Dental Council to inspect the stature of the subject Oral Biology as presented by the Dental Faculty of the University of Stellenbosch. It was his conviction and he also stated it pertinently that the subject Oral Biology must be integrated with clinical teaching throughout the years of study. Prof Barnard for several years acted as External Examiner for the final exams of the Oral Hygienists and dental therapists at the University of Durban Westville.

In July 1991 he was out of the blue struck down by a herpes encephalitis which landed him in the intensive care unit of the Eugene Marais Hospital where they fought for

his life. This was the first time he had had to stay away from work as a result of illness. Fortunately and by the grace of God, as he remarks, he survived but had to go through a lengthy process of rehabilitation. He recovered remarkably well but was forced to retire and was awarded the status of Emeritus Professor, with retention of his title, by the Council of the University... a proud way to retire.

Eventually he gradually picked up the endless amount of data which fortunately had been saved on his computer and was extremely proud to launch the first edition of his life-long undertaking, his book "Hazards of Local Anaesthetic Injections" in August 1994, an occasion that was concurrent with his twentieth attendance of the Congress of the SA Division of the International Association of Dental Research. He received an abundance of local and foreign compliments and appreciative comments on his publication. It was also well accepted by the Dental Schools as a prescribed book. "Hazards of Local Anaesthetic Injections" is the first and only book on this subject published by a South African author in the RSA and he was proud to receive an order from the Library of the American Dental Association. Soon, Prof Barnard was being requested to give lectures at the different branches of the DASA, was consulted by dental as well as medical practitioners and specialists, medical schemes, the SABS pharmaceutical suppliers and academic personnel. He had several requests from the Medical and Dental Council to investigate and comment on cases reported by patients of alleged malpractice apropos of local anaesthetic practice. On one occasion he was summoned to court to give expert opinion subsequent to the death of a young man suspected to follow a lethal oral intake of lignocaine. In 1996 he received Honorary Membership of the then Northern Transvaal division of the Association at which ceremony he was honoured as a pioneer with reference to the establishments of standards for safe and effective local anaesthesia in RSA. Based on the years of research he managed to persuade local manufacturers to delete paraben preservatives from their products and also had a favourable effect on some overseas producers from whom local anaesthetics were imported. With his close association with the Medical Director of Adcock Ingram at the time, he was also actively involved in the formulation and production of a very efficient analgesic with combined anti-inflammatory and anti-histaminic effects that is inter alia very effective in post-surgical cases.

In 1998, he published a revised edition of Hazards of Local Anaesthetic Injections and a further demand justified a Second Edition in 2000 – achieved despite a motor accident early in 1999 in which he suffered severe injuries.

In May 2001, on his 72nd birthday, the Professor attended the Second Milestone International Training Course as a guest of honour and was applauded by the delegates of eight overseas countries for his excellent publication - of which all were in possession. He received requests from academic institutions of two European countries, Poland and Turkey, for permission to translate his book.

With the objective of compiling a book on local anaesthetics that is more condensed and easier to consult he published a booklet based on questions and answers, containing coloured illustrations and entitled "A Practical Approach to Hazards of Local Anaesthetic Injections: Questions and

Answers" in 2004. This publication was highly praised by the Editor of the South African Dental Journal and on his request it was released for serial publication.

He received an invitation to become involved in a project investigating the direct effect of local anaesthetics on cell growth and uncton of non-neurogenic tissue and is part of the research team in the Department of Anatomy, Basic Medical. Sciences, University of Pretoria.

Prof Barnard's relevant publications, abstracts, memorandums and lectures to selected audiences, local and international, count in the vicinity of sixty five. He has also been a consultant and is quoted in two textbooks of Pharmacology. He has acted as referee for several articles published in the SADJ. He is still keeping up to date with the advancement in his field and renders a complimentary informative telephonic and email service to anyone in need.

He also has made an intensive study of natural health food supplements and the side effects caused by preservatives and other additives present in processed foods. Daanjie has built up a substantial collection of literature and books on the subject and attributes his magnificent recovery to a large extent to the use of natural food supplements and has guided many friends and family on the right track as far as their health is concerned and finds that exciting and stimulating.

Prof Barnard remains a student and keeps up to date with scientific advancements in his field of interest. He receives the weekly interactive e-bulletin MedicalMail for Health Professionals which allows easy contact with medical opinion leaders worldwide.

He and his charming wife Gerda are blessed with five children and eleven grandchildren and if he is not reading scientific books and articles, he spends his time on his Yamaha keyboard and produces his own CDs with soft and sweet music of yesterday.