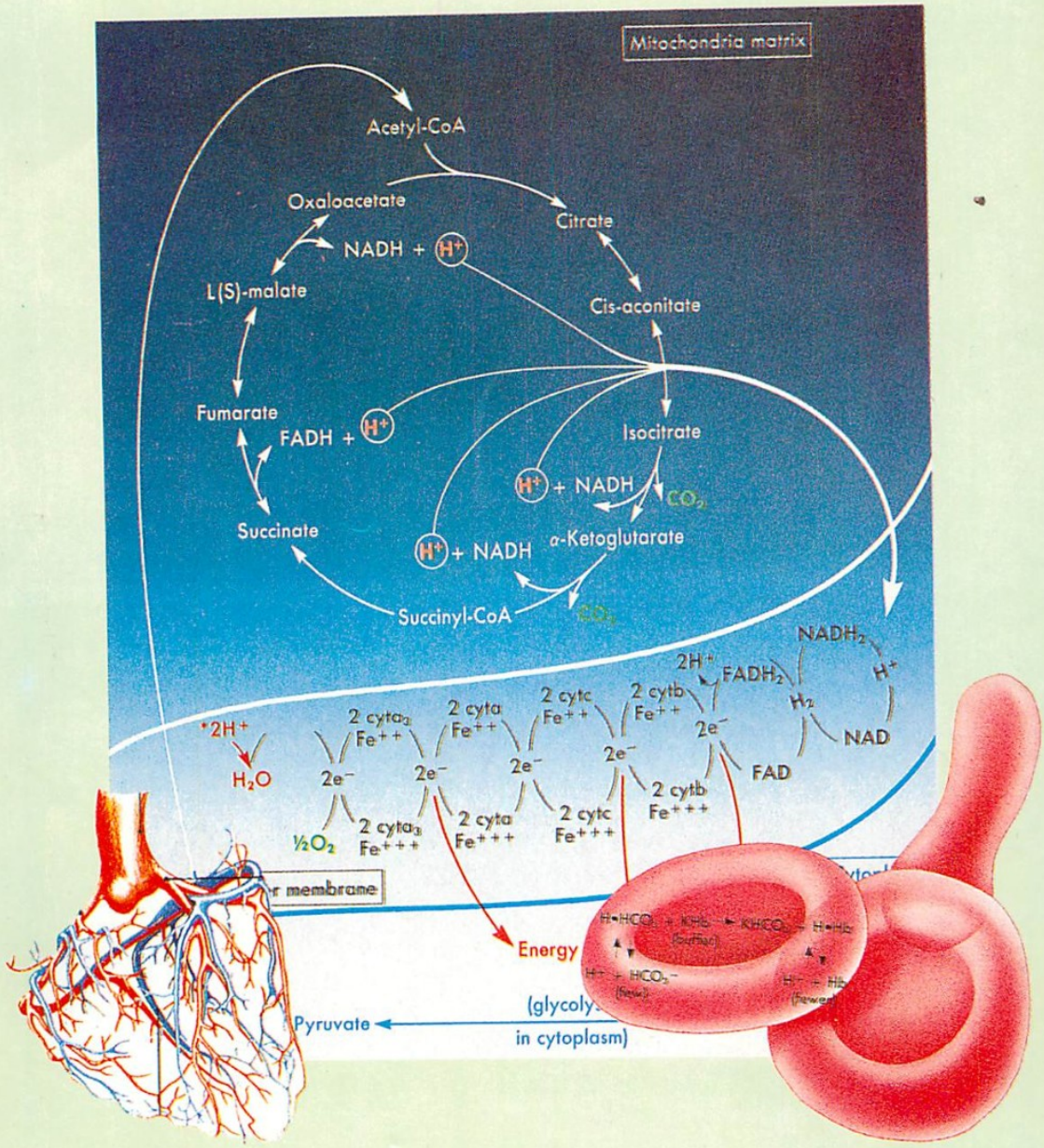
11TH ANNUAL SYMPOSIUM

DOW MEDICAL COLLEGE KARACHI



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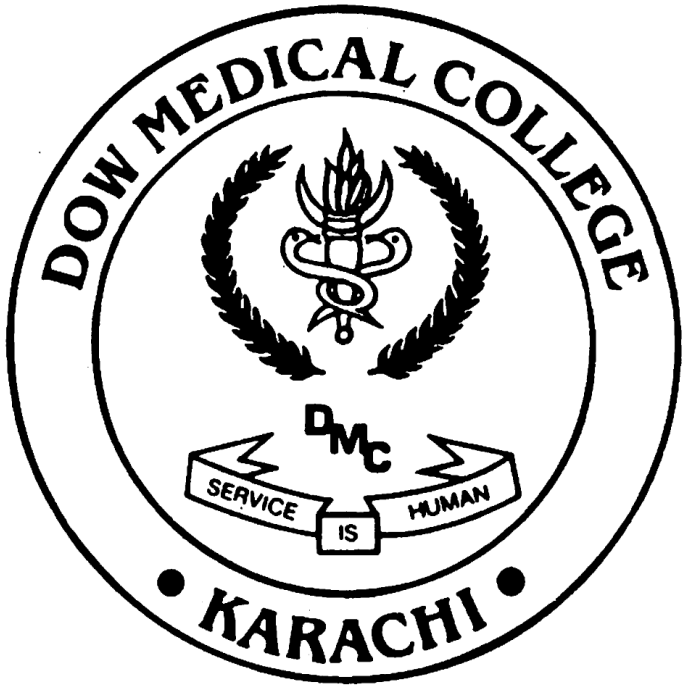

11TH ANNUAL SYMPOSIUM

Dow Medical College, Civil Hospital
And Lyari General Hospital, Karachi
21st -- 23rd May 1993

COVER STORY

The title cover depicts the theme of this symposium that is BASIC MEDICAL SCIENCES AND THEIR CLINICAL APPLICATION Anatom , physiology and Biochemistry are the three subjects which form the foundation of Medical education, without them the clinical aspects of Medicine would come to a standstill

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EDITORIAL

Welcome to the 11th Annual Symposium of Dow Medical College, Civil Hospital and Lyari General Hospital Karachi.

This Symposium will hopefully provide an opportunity to its participants to update their knowledge from the various preclinical workshops & scientific sessions. The theme is to focus the importance of Basic Medical Sciences and their clinical application.

We have introduced a few items such as the recent advances in Civil Hospital and Lyari General Hospital in the '90s, and the historical perspective of Civil Hospital and Dow Medical College. In this innovative and graphic narration, the history of the genesis of Civil Hospital and Dow Medical College has been traced. In the effort, some of the commemorative plagues in the hospital have helped to unfold the history of this place in a chronological order.

The group photographs give a glimpse of the senior and junior staff members of Dow Medical College, Civil Hospital and Lyari General Hospital. Because of their work commitment all the members could not be present in the photographs.

This souvenir is only one of the efforts to make this symposium a success. There have many helping wards, but I would like to thank Dr. Omar Lodhi, Dr. Taqi Hasan, and Dr. Rehamatullah Soomro, in particular for their hard efforts to bring this Souvenir to you. We hope this symposium becomes a memorable event for you.

Mabel Zaki

THE SYMPOSIUM FACULTY 1992-93

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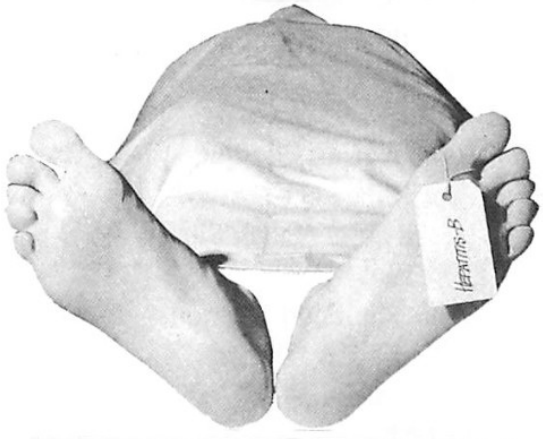
kills 2 million people every year



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*Andre FE (1986) In: A new hepatitis-B vaccine produced in yeast. Proceedings of a Satellite Symposium, Asian Pacific Association for the study of Liver. Singapore, January 1986. Science Press, 11-18.

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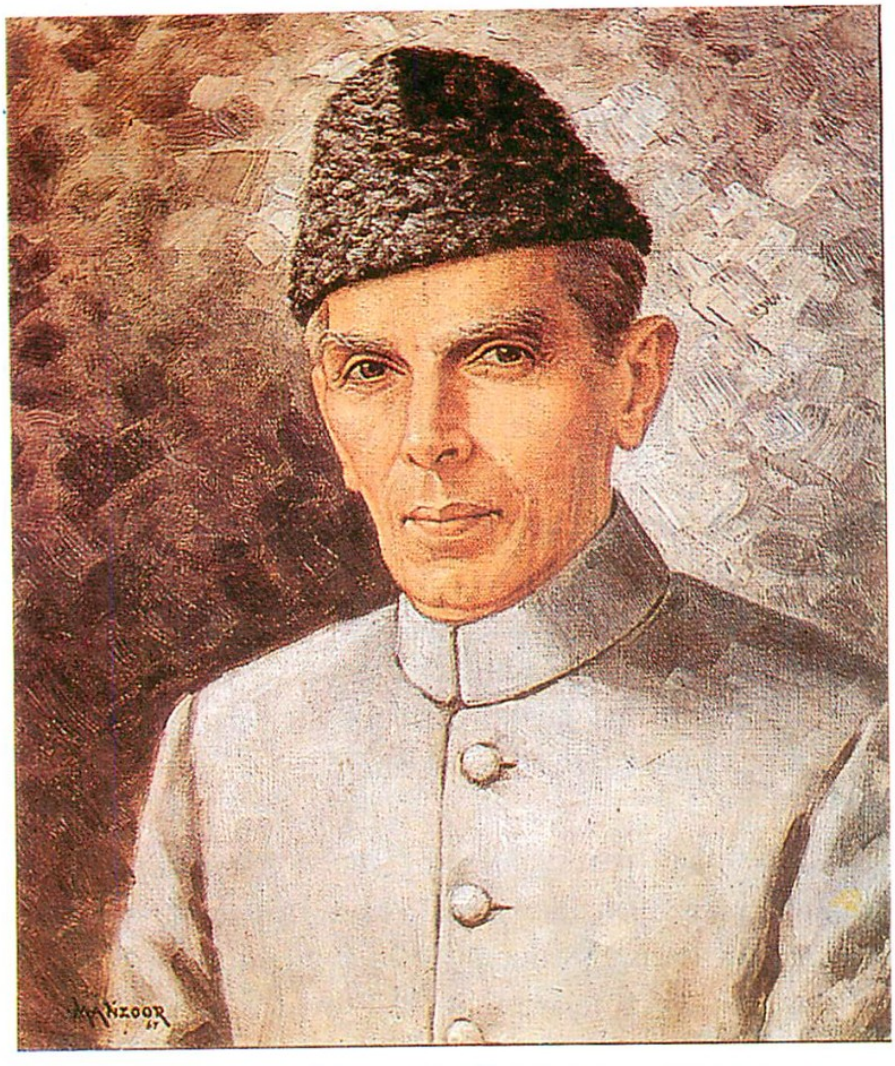
MESSAGES

11TH ANNUAL SYMPOSIUM



FATHER OF THE NATION

"Education does not merely mean academic education, and even that appears to be of a very poor type. What we have to do is to mobilize our people and build up the character of our future generations. There is immediate and urgent need for training our people in the scientific and technical education in order to build up our future economic life".

Message to the
All Pakistan Education Conference,
27th November 1947

CHIEF SECRETARY
GOVERNMENT OF SINDH

It gives me great pleasure to know that Dow Medical College & Civil Hospital & Lyari General Hospital, Karachi are holding 11th Annual Symposium in which eminent scholars and medical practitioners from Pakistan and abroad are participating.

Government attaches higher priority to the health sector with the objective that health delivery facilities in almost all the specialities may reach the common man.

I hope that participants of the Symposium, besides exchanging views on the latest experties in the medical sciences will also discuss the mode of availability of doctors in the far-flung and remote areas of the Province.

I wish the organizers all success and wish the foreign delegates a happy stay.

SAIYED AHMED SIDDIQUI

SECRETARY HEALTH
GOVERNMENT OF SINDH

I would like to extend my felicitations and the best wishes on the auspicious occasion of 11th Annual Symposium of Dow Medical College, Civil Hospital and Lyari General Hospital, Karachi. This symposium will undoubtly contribute towards the cause of continuing medical education and will provide an important forum for introducing and sharing new ideas and experiences in the field of medicine.

I hope that the medical graduates would keep the motto of "Service to the People" in mind.

I wish success to the 11th Annual Symposium in achieving its objectives.

NAYER BARI

DEAN FACULTY OF MEDICINE UNIVERSITY OF KARACHI

The 11th Annual Symposium of Dow Medical College, Civil Hospital and Lyari General Hospital, Karachi is a very important occassion. It is the exposition of advanced scientific activity in this great premier institution of Pakistan. As I have always said inspite of all odds Dow Medical College has contributed much. At the moment most of the doctors, specialists and teachers in Sindh have been trained here. Furthermore, the amount of research which is done here is tremendous. It is therefore necessary that we celebrate the occassion with fervour.

More recently, we have changed the system of examination to M.C.Q. here as in other medical colleges of Karachi. I am pleased to note that Dow Medical College has mantained its metal also in this new system.

In this connection, I congratulate the college administration, members of the Symposium Committee and all other committees for organising the Symposium and wish them a grand success.

PROF. M. JALISI

PRINCIPAL
DOW MEDICAL COLLEGE

Research and teaching are both ways of knowing both are creative, desirable and engaging activities, which demand the highest forms of intellectual processing. Both involve pursuit and the communication of TRUTH. Therefore a faculty in Biomedical Sciences is incomplete without highly valued research, the pursuit of TRUTH.

Advancement in Medical Science is exponentel, it is impossible for a reader to comprehend all these in available time. The 11th annual symposium of DMC would provide comprehensive information in a coherent way where the valued researches would meet for the exchange of experties and academic ventillation.

I wish the best of luck to the organisers to accomplish this uphill task nicely and assure them my full cooperation in all possible ways.

PROF. SHAKIR ALI JAFERY

MEDICAL SUPERINTENDENT CIVIL HOSPITAL KARACHI

It gives me great pleasure to learn that the 11th Annual Symposium of Dow Medical College, Civil Hospital Karachi & Lyari General Hospital Karachi is being held this month. The symposium which is an annual feature provides an excellent forum for the delegates to share their views and continue to strive for excellence in their respective fields.

I wish the organisers and the delegates all success in their endeavours.

Dr. Abdul Hady Khan Sherwani

MEDICAL SUPERINTENDANT LYARI GENERAL HOSPITAL KARACHI

It gives me great plessure to write a few words for the souvenir of the 11th Annual Symposium of Dow Medical College, Civil Hospital and Lyari General Hospital, Karachi.

It is heartning to know that the Symposium has become an annual feature of Dow Medical College. I hope our doctors will have the apportunity to update their knowledge in medicine and will learn some thing to help their community more acurately.

I wish the faculty of the college all success in their endeavour.

PROF. DR. AZAM HUSSAIN YOUSFANI

CHAIRMAN ORGANISING COMMITTEE

It is with great pride and pleasure that I write this message, as Chairman of the Organising Committee of the 11th Annual Symposium of Dow Medical College, Civil Hospital and Lyari General Hospital Karachi.

Symposiums are platforms to propagate the academic achievements, research endeavours and professional experiences of Scholars. Knowledge, inrespective of its origin, is always worth attaining. Dow Medical College is a pioneer medical institution of the country and has produced professionals of great calibre. The symposium of Dow Medical College has become an annual feature and over the years it has grown to be one of the major events of the profession. Over the last 10 years, a joint effort of the whole faculty has created a healthy and constructive academic atmosphere at all such past events.

The programme of this Symposium includes:

- Pre Symposium workshops in various departments
- Presentation of free papers by doctors as well as medical students
- Update lectures by experienced doctors of international

standing.

The theme of this symposium is BASIC MEDICAL SCIENCES AND THEIR CLINICAL APPLICATION. I hope it enables the participants to emphasise the importance of basic medical sciences. It is very encouraging to see a constructive participation and feel the spirit for undertaking research work, particularly in the younger generation of doctors and medical students.

Organising a symposium is a gigantic task. In this connection, I thank all the members of the organising committee for their hard work and tremendous efforts to make the symposium a success. The continuous help and support of our young doctors and medical students has been remarkable and deserves acknowledgement and appreciation.

I hope this symposium brings us positive recommendations and will be something to remembers for a long time let us celebrate the occasion with fervour.

PROF. KHAWAJA SHARIFUL HASAN

FROM THE DESK OF CHAIRMAN SOUVENIR COMMITTEE

Carrying overall responsibility for production of souvenir of 11th Annual Symposium was obviously not possible without a team work. The result is in your hand.

You are the best judge of some new ideas that have been added. An attempt has been made to print minimum photographs of "Singular origin".

Also it has been the objective to make it a "Souvenir" and something to take home from reading matter point of view.

I am grateful and full of appreciation for secretary, editor and members of souvenir committee for producing this souvenir. My special thanks to Dr. Omer Hashmat Lodi, Dr. Taqi Hasan and Dr. Rehmatullah Soomro for the "real work".

PROF. S. TIPU SULTAN

PHOTOGRAPHS

11TH ANNUAL SYMPOSIUM

OUR INSTITUTION

ACADEMIC COUNCIL

TEACHING FACULTY OF DOW MEDICAL COLLEGE AND CIVIL HOSPITAL, KARACHI

TEACHING FACULTY OF LYARI GENERAL HOSPITAL

ADMINISTRATIVE STAFF
OF CIVIL HOSPITAL, KARACHI

NEW PRINCIPAL WITH FEW MEMBERS OF ORGANISING COMMITTEE

THE WORLD OF

DOW MEDICAL COLLEGE AND AFFECIATED HOSPITALS

11TH ANNUAL SYMPOSIUM

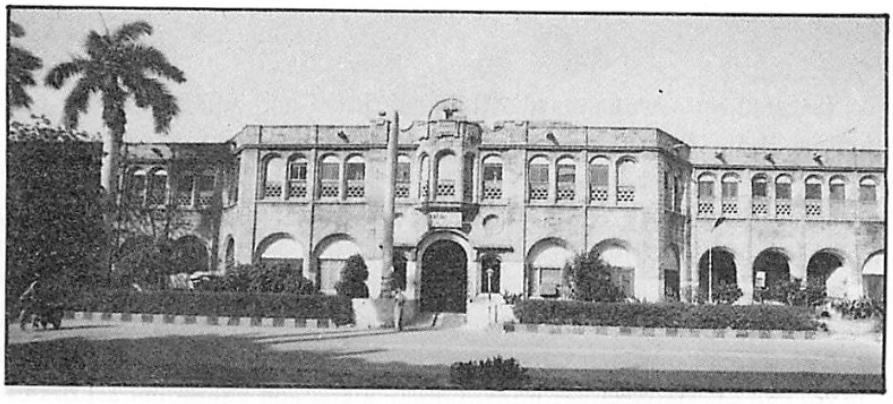
HISTORICAL PERSPECTIVE OF
CIVIL HOSPITAL AND DOW MEDICAL COLLEGE KARACHI

By
Dr. Syed Hamid Zaki

Located on - Muhammad Ali Jinnah Road and adjacent to the historic Khaliqdina Hall, where one of the greatest advocators of education and freedom, Moulana Muhammad Ali Joher was summarily tried by the imperialist, lies the twin facility of Dow Medical College and Civil Hospital Karachi - hand-in-hand for the last half a century. Stretching over an area of more than 100,000 square yards, the college and hospital complex have remained inseparable inspite of iron gates and concrete walls bisecting them physically. Like all iron gates and concrete walls this physical division has also been porous to the intellectual, professional, social and emotional aspirations of these two great institutions of the country.

Modern medical education came years after modern medicine, to the sub-continent. Like most of the other technologies, inception of medical technology also dates back to the British imperial era. After establishing their stronghold in Surat (Bharat) in the days of Shahjehan and later in Bombay, both being port cities of western ghats, they had a large number of troops who needed to be looked after. This need prompted into establishing of what could be termed as the pioneer hospitals of modern medicine of the sub-continent, in these cities. Much later, after the proclamation of British Raj in the south asia and establishment of garrison at Karachi, another port city further west on their home route, they felt the need for a medical facility at Karachi, then a small city of 200,000 population.

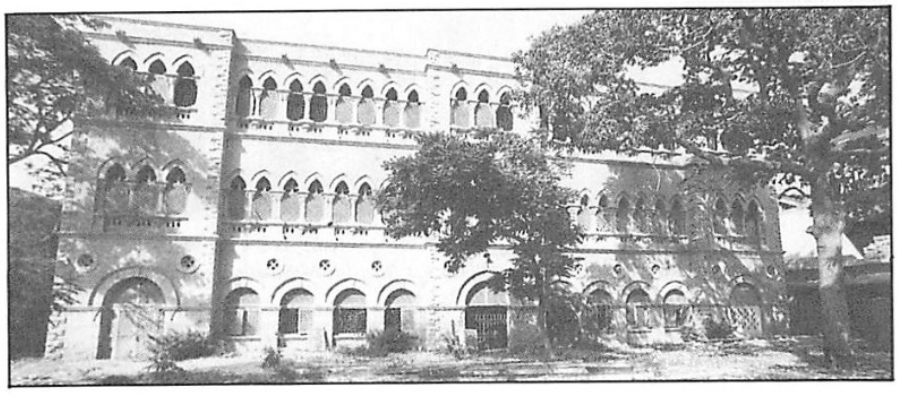
It was in 1898, twenty two years after the birth of Muhammad Ali Jinnah, that Civil Hospital, Karachi was established at its present site, barely one mile from his birth place in Kharadar - the gate of the once walled city of Karachi opening towards the sea water (Khara). In all probability Mr. Jinnah Ponja or Zainab Bai, the parents of the founder of the nation must have visited the various facilities of the hospital, oblivious of the fact that one day their son would pioneer a movement and liberate Muslims of British India to a new homeland PAKISTAN, and that the road they had taken to reach the hospital would be named after him.



Original building of Civil Hospital Karachi, inaugurated in 1898.

The hospital was initially planned as a small district hospital catering only for 250 beds comprising of four buildings - present isolation ward which used to house the medical superintendent and his staff. The block extending from Medical unit III to Orthopaedic Unit housed the rest of the wards. The small building which at present has the office of the assistant engineer of PWD, was part of the original hospital and then used to function as the mortuary and medicolegal section. One building in the nurses hostel, situated at the intersection of Chand Bibi Road and Baba-e-Urdu Road, was probably a church and later converted into boarding area. The hospital originally consisted of a medical, surgical, E.N.T., Ophthalmology, Gynaecology and Obstetrics and Paediatrics wards.

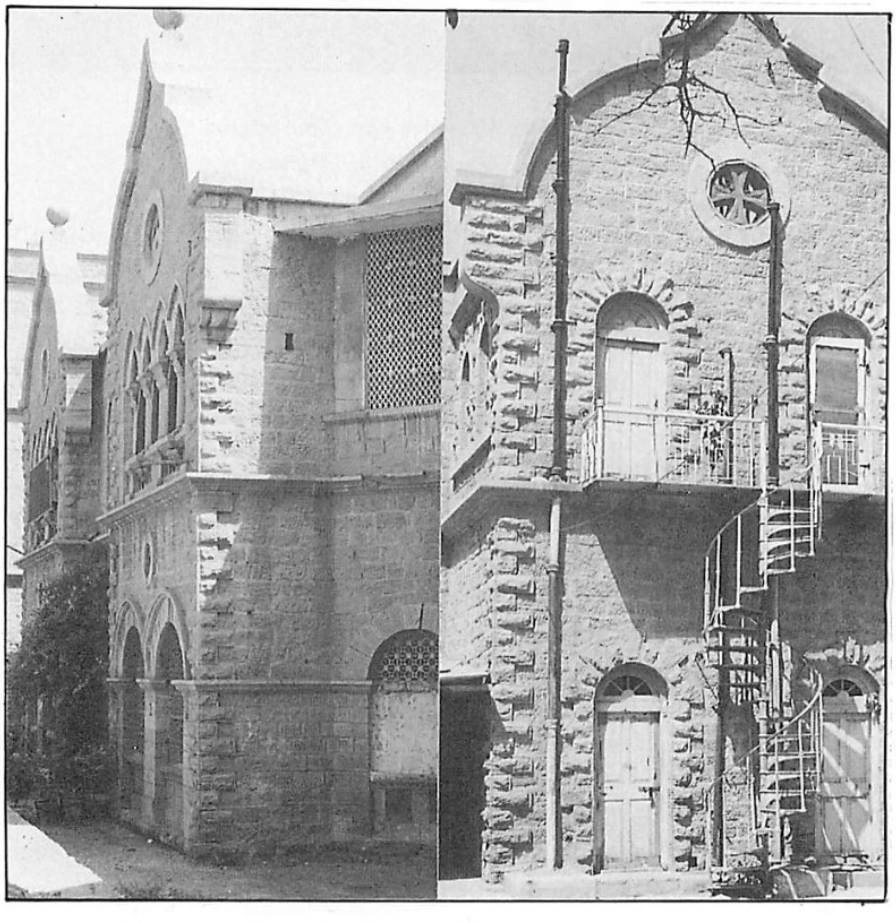
Two structures of the original hospital complex constructed in 1898, have been lost to time, one was located at the site where the orthopaedic ward II has it's entrance, this building used to be the stores of the hospital. It was probably razed to the ground in late Sixties. The other structure was the hospital incinerator with its long chimney marking the skyline, located between the present Medical V and the outer wall towards Chand Bibi Road. The chimney was shifted to Dow, it is still standing there as an abandoned nuclear site, while the fire place is used as a living quarter.



Building in Nursing Mess area part of the original Civil Hospital Karachi since its inception.

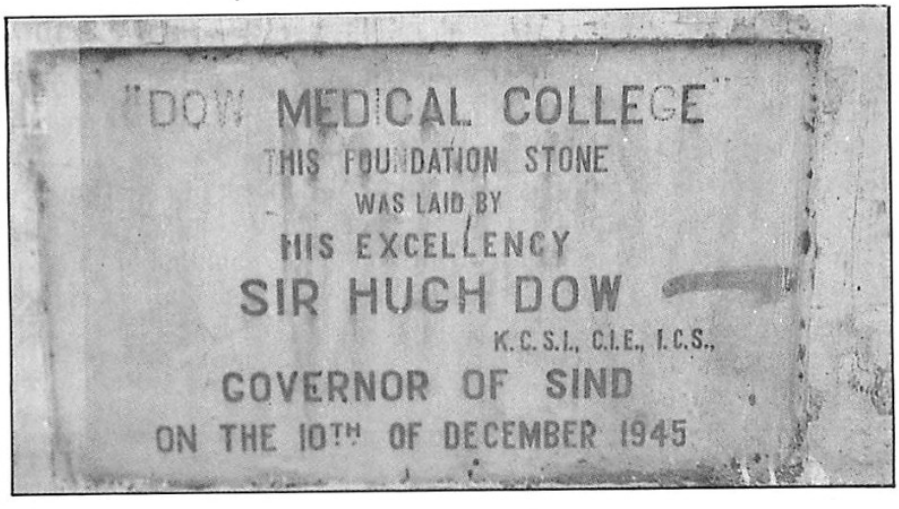
Two years after its inception, in the year 1900, the British raj celebrated the Diamond Jubilee of the Queen Empress. To mark this occasion a Queen Victoria Golden Jubilee Block was erected in the nursing hostel area. the foundation stone of this building was laid by Lord Curzon the then Viceroy and Governor General of India, emphasizing the importance of the newly established hospital. Ninety three years later this building is still being used for the boarding of nurses, though in shambles. Another building was added in 1917, which presently accommodates O.P.D. 14 of Nephro - Urology. The foundation stone of this double storeyed building was laid on 7th May 1917, by the then Commissioner of Sindh Mr. H.S. Lawrence, about 100 yards away from the site, which was to see another foundation - laying ceremony exactly after 28 years and 8 months - that of Dow Medical College, Karachi by Sir Hugh Dow, the then governor of Bombay. This building was constructed by the Mohatta Trust to establish the R.B. Seth Coverdhandas Motilal Mohatta Eye Hospital, incidently Seth Mohatta belonged to the family of Mohatta's who owned the famous MOHATTA PALACE, which was acquired by Quaid-e-Azam after independence and where his dear sister breathed her last. It remained an ophthalmologic unit for 75 year and now has been declared dangerous and would be lost to lack of maintenance or to give way for another new featureless structure - what a waste.

Full view of the R.B. Seth Coverdhandas Motilal Mohatta Eye Hospital.



Elevation of Queen Victoria Diamond Jubilee Block, front and rear view

The most note worthy and remarkable development in the genesis of Civil Hospital was the establishment of Dow Medical College at Karachi and its subsequent attachment to Civil Hospital, making it a teaching hospital on 31st, December 1945. Before we embark on tracing the evolution of Civil Hospital as a teaching hospital it is imperative to look into the historical perspective of Dow Medical College, because from 1945 onwards, both the institutions became synonymous with each other.



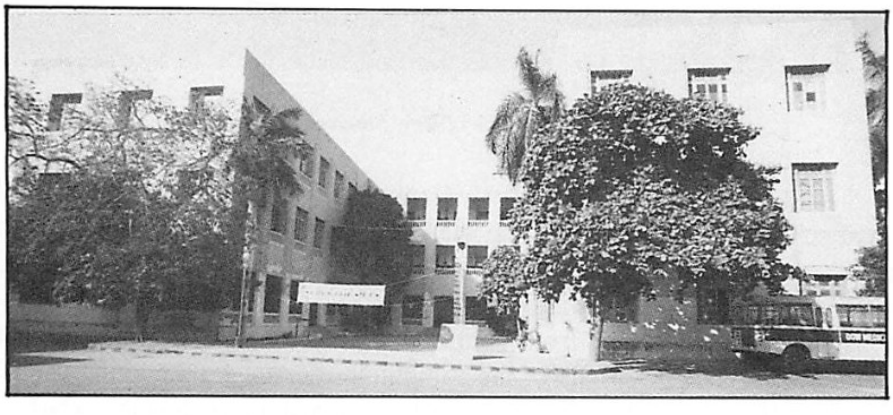
The foundation stone of Dow Medical College.

In 1941 the Indian Medical Council recommended the abolition of medical schools producing licentiate medical practitioners, in order to enforce uniform medical education of university standard. In response, the then government of Sindh constituted a committee to explore the possibility of shifting the Medical School from Hyderabad to Karachi and upgrading it to a degree College. The proposals of the committee remained unattended till 1943, when Dr. Hemandas Wadhwani the then minister of health, started to implement them. Thus the first batch of students for the proposed M.B.B.S. class was admitted in June 1945, with the new redesignated Medical College still located at Hyderabad.

The first principal of this college was Dr. Kawairam Tarasingh Ramchand, a M.B.B.S. from Bombay. He remained principal till 30th, December 1945 when the college started to function in N.J.V. high school

building, located on bunder road, close to the proposed site of Dow Medical College building under construction since 10th, December 1945. Lt. Col. Aziz Khan Muhammad Khan was the first Principal of Dow Medical college and remained on the post till 25th, January 1953. It is a co-incidence that Dr. Aziz Khan died while presiding over the First Annual Symposium of Dow Medical College, held in 1982, about fifty yards from the foundation stone. From 1945 to 1947 the college remained affiliated to Bombay Uniersity when immediately after independence in December 1947 it got affiliated to Sindh University. Since 1951, the college is affiliated to University of Karachi which was then located across Chand Bibi Road.

Since its inception, Dow Medical College and attached Civil Hospital were under the administration of Sindh Government. It remained so till 7th, July 1951 when the Central Government, then located at Karachi took over its administrative control on 8th, July 1951. On establishment of One-Unit system, the charge of these institutions was transferred to the West Pakistan Government and remained under its jurisdiction till the abolition of One-Unit or 30th, June 1970, when both the institutions were returned to the parent government of Sindh.



The original building of Dow Medical College

Dow Medical College started to function in its own premises in November 1946. The design of the new medical college building was proposed in 1945 by Mr. Abhichandani P.W., who was then Executive Engineer in the Power and Works Department of Sindh. He proposed the design after visiting the buildings of medical colleges at Bombay Lucknow, Delhi and Amritsar. Lt.

Co. Gray J.E., who was then the Inspector General Of Civil Hospitals Sindh, accompanied Mr. Abhichandani to ensure the incorporation of professional aspects of medical education and clinical teaching.

Construction of two other buildings were simultaneously started with the building of Dow Medical College. One situated close to the college building, presently has Medical and Surgical Units I and II, the other is located within the walls of girls hostel, the structure and design of these three buildings bear close resemblance to each other. In 1946 this building use to house the Principal's office and his staff on the first floor, while the ground floor accommodated the out-patient department of various units; presently the building is used as boarding house for girls students and lady doctors.

After independence in August 1947, things started to happen on a rapid pace, Karachi being the capital of the new country, got an extra share of every thing - blessings and miseries - the Civil Hospital Complex started to grow accordingly. Over the past four decades Karachi experienced an astounding change in the texture of its population and economy, having a 60% higher per capita income and paying 60% of the nation's taxes. Yet the actual physical aspect of the city an unaesthetic configuration of extremes, ranging from slums and ghettos to villas and condominiums; from almost no education, health and basic amenities for many, to public schools with foreign curriculum, Hi-fi luxurious hospitals and domestic luxuries for the elite on the other hand. This odd configuration posed new challenges to Civil Hospital which responded by expanding in an unorganized fashion due to sheer pressure. Some of the major events can however be mentioned according to the year of happening as follows:

1950-51: A new block was constructed to house four independent operation theaters - fully equipped and air conditioned. This facility is still intact and in use.

1952-53: To accommodates the increasing O.P.D. attendance a new building for outpatient was built, this presently accommodates the neurology ward, casualty extension and radiology department. The same year a proper kitchen facility was built which is functioning to date. The increasing number of indoor patients required a larger strength of para-medical staff which prompted construction of an additional hostel for nurses, which is still being used for the same purpose.

1954-56: The patient load kept on increasing and another floor was added to the newly constructed O.P.D. building to accommodate the new Gynaecology and Obstetrics wards, which started to function in two independent units, with its own theatre; rest of the portion was made a paying ward. In the same period construction of hostel IV was also started, which remained boarding area for boys and male doctors of the Hospital; in 1987 the hostel was vacated and wards were established.

1961-62: A relative calm on the expansion front is felt during the period between 1956-1962, incidentally these were the years of political and administrative uncertainties. Governments were being changed and replaced, sometimes within 48 hours. Eventually in 1958, the country had its first martial law- plans to shift the capital were conceived and finalized; changing the priorities now changed. However after everything was sorted out, the West Pakistan government working under the arrangement of ONE-UNIT took over the charge and things started to move in a positive direction for Civil Hospital and Dow Medical College.

Meanwhile the University of Karachi which was located on Chand Bibi Road shifted to its new campus, leaving its premises for the hospital. Five buildings were thus renovated with an expense of Rs. 4,16,000 and were utilized as accommodation for doctors, para-medical staff and students. A mosque was also constructed this year with the help and efforts of Dr. Noor Muhammad Thebo, who was then a demonstrator in the Department of Pharmacology, and is presently settled in Madina, Saudi Arabia. The mosque is still in use and its capacity was extended in 1990, through the efforts of Dr. Muhammad Abdullah a Dow graduate; he is an active member of the committee managing the affairs of the mosque.

1962-63: Another storey - a second floor was added to the Out-Patient building on the gynae unit, this new floor accommodated the Paediatrics ward, female surgical ward and two new speciality of plastic surgery and special ward were added to the existing facility.

1964-65: A three storeyed building was added to the expanding hospital complex to house the general and medical store and also the administration. In the same year the open area in front of medical Unit I and II was cemented.

1966-68: Living quarters for 32 families of the class IV servants of the paramedical staff were constructed in the premises of the hospital.

1969-71: Rahim Khan, the famous orthopaedic surgeon was the administrator, when three major additions were made to the Physical structure of Civil Hospital and Dow Medical College. The first being the three storeyed building adjacent to the mosque which has the Rehabilitation Department on the ground floor, Orthopaedic children ward on the first floor and operation theaters on the second floor. The other construction was addition of third floor to the O.P.D. building, which accommodated the urology, dermatology, plastic surgery and special wards. The most significant contribution, was to the college in form of the round hall lying smack in-the-centre of the complex and is known as ARAG Auditorium.

1972-74: Seventies were important years for the country specially for the Sindh province. Health Delivery sector started to expand, two new medical colleges started to function and once again D.M.C. and C.H.K. complex got to put-up a new face. Hospital for infectious diseases situated across the hospital road was taken over, and O.P.D. was shifted there. Later in this period the present O.P.D. block was constructed and the area became the out-patient department of Civil Hospital. The area thus vacated accommodated the Neurology, Psychiatry, Neurosurgery Radiology and paying wards.

In the college complex, old offices building was razed to the ground and a new building was erected, which now houses the main Auditorium, girls recreation area on the ground floor, college library and faculty office in rest of the floors. The entrance stairs of this building holds very nice memories and still caters for the aspirations of young would be doctors - both curricular and extra curricular

1975-77: Another four storeyed block was added to the college complex, rising over the ruins of the old library, boys common room and the departments of Forensic and Community and Preventive Medicine. This building at present accomodates the administration, Forensic medicine and Community medicine departments.

Eighties: In the eighties many internal physical adjustments, relocations and formations of new units and wards took place. Many iron gates

were added and concrete walls sealed off quite a few doors and windows, adding to the maze of Civil Hospital, yet there was some constructional activity worth mentioning. The Nephro-urology department managed to built an entire floor over the existing ward thus adding a fourth floor to the hospital building. Even more important was the impact, this extra floor must have had over the staff of Urology Unit, putting them in a position to aspire for a separate Institute status - which they finally achieved in January 1993 - BRAVO.

Another important landmark was the development of an organized Casualty Department, this was done by the Patient Welfare Association (PWA), an organization of the students of Dow Medical College, and handed over to Civil Hospital in 1988. Around same period Neurosurgery Ward in the O.P.D. section was constructed, It was in late eighties that the college was separated from the hospital area physically by constructing a 10 feet high concrete wall. This wall still exists like a hypertrophic scar of a bypass surgery, bisecting the bossom of the Alma matter into two halves.

The most note worthy and remarkable development of the nineties, is the addition of Surgical intensive Care Unit, which was started in 1991 and completed in phases - it started to function in 1991. Today there are 1670 beds in 35 wards including 5 general medicine, 6 general surgery, 3 gynaecology & obstetrics, 2 paediatrics, 2 Orthopaedics, 2 Ophthalmology, Dermatology, Neurology, ENT, Psychiatry, Cardiology, Plastic Surgery & Burns, Nuero-Surgery, Vasular-Surgery, Paediatrics Surgery, and an Isolation ward each. The hospital has 23 out-patients departments in addition to round the clock Casualty Department. There are 11 operation theaters with 22 fully equipped operation tables in various speciality of surgery.

"PATIENTS' WELFARE ASSOCIATION"
A DMC STUDENTS' ACTIVITY

Much has been written and said about the present predicament of youth. Frustration, disorientation, aimlessness and destruction are all words often associated with the youth of today. But in actual fact the causes of present situation are multifold, in our third world countries they can be stated as instability in economical, social and political conditions. Lack of entertainment and inavailabilty of opportunities to pursue one's interest is also a contributing factor.

Youths do not know how to spend their spare hours and so many of them are seen waving placards and chanting slogans on the streets on pelting stones. All that youth needs is a specific direction to channelize their energy and make it worthwhile for the society and humanity. PWA along with its multifarious benefits to the needy patients also provides the youth with a very healthy and constructive outlet for their energy and their interests giving them proper orientation towards an aim and a cause.

Patients' Welfare Association was formed in 1979 by only three medical students of DMC who felt the need of "doing something for those who can't do anything for themselves." The idea was simply to help the poor patients of CHK who couldn't afford expensive treatment. That small organisation soon by the hardwork and sincerity of the workers turned out to be an exemplary organisation of its kind. Today hundreds of dedicated students of DMC are working enthusiastically for the welfare of poor patients.

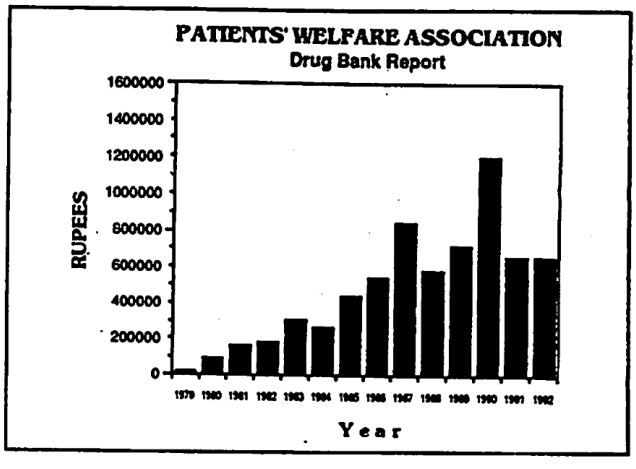
In its fourteen years of honest and laborious work, PWA has achieved in gaining the confidence of doctors of both CHK and also outside it and also the patients who feel that PWA can be relied upon in their hour of need.

The main aim of this article here is to present a detailed account of the functioning of PWA, to give our youth an idea of the other alternative available for them, to overcome their anxiety, aimlessness and frustration and divert their energy and time for helping others.

DRUG BANK

The PWA Drug Bank was established in 1979. This was in response to the needy patients who could not afford to buy life saving drugs from the open market and to whom the hospital was unable to provide such facilities. Consequently, many patients died due to lack of medication. PWA has up to date administered drugs totaling about Rs. 8.33 million to the patients. The Drug Bank also has a followup clinic for the long term therapy of patients of TB, Epilepsy and Parkinsonism, in which about 80 patients are registered.

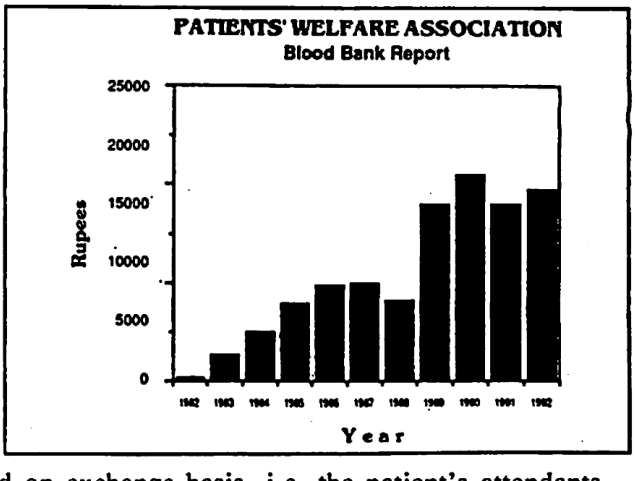
Year	Rs. in '00s
1979	24,031.57
1980	120,342.73
1981	208,593.01
1982	229,287.99
1983	382,577.94
1984	330,495.00
1985	551,380.00
1986	669,147.00
1987	1,056,198.00
1988	722,513.00
1989	899,538.12
1990	1,500,814.71
1991	824,722.39
1992	824,015.12



BLOOD BANK

Blood Bank was established in 1982. Todate it has provided about 120,023 pints of blood. The blood bank provides a 24 hours coverage and ensures that the quality of blood dispatched is almost disease free and cost free to the patients of CHK and other hospital.

Year	Pints Arranged
1982	446
1983	2,683
1984	4,931
1985	7,829
1986	9,657
1987	9,892
1988	8,225
1989	17,881
1990	21,101
1991	17,972
1992	19,406



The blood is provided on exchange basis, i.e. the patient's attendants

are required to donate the required amount of any group of blood and PWA will in return give them the same number of required group of blood. Blood is also given to the patients with no or in-capable of donating blood attendants. This blood, i.e. free of exchange, is collected in various blood donation camps held in different localities. PWA has uptill now organised a number of blood donation camps in which thousands of pints of blood have been collected.

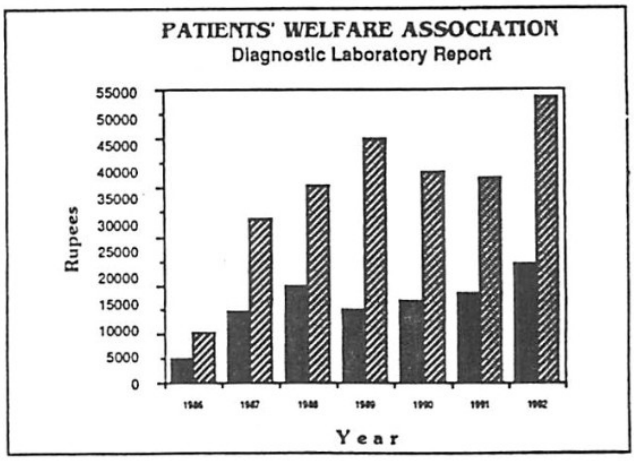
All the blood collected is then subjected to various screening tests like hepatitis. VDRL (Veneral Diseases), HIV (AIDS) and hematocrit on latest equipment and by most modern and accurate methods.

PWA was the first in Pakistan to import a Cryofuge Unit. the Cryofuge Unit is basically a blood fractionation device used for the separating of various components of blood, which includes the plasma, platelets, red blood cells, white blood cells etc. It does this by rotating the blood at a very high speed. So instead of giving the whole blood, its various components can be given.

DIAGNOSTIC LABORATORY

The PWA Diagnostic lab. was established in 1986. It provided free of charge immediate management tests like Blood Sugar,. Urea,. Creatinine, Bilirubin,. Electrolytes, Serum Calcium and Prothrombin time. It works from 2.00 p.m. till 8.00 a.m. next morning. The Diagnostic lab, has so far provided 278.058 tests on 114,383 patients.

Year	Number of Patients	Number of Tests
1986	4,965	10,508
1987	14,650	33,503
1988	19,785	40,340
1989	14,958	49,911
1990	16,902	43,193
1991	18,495	42,017
1992	24,628	58,583



E.C.G. Service

In 1983, PWA acquired an ECG machine. Free of cost E.C.G service is provided to various wards of the hospital on request by the doctors. Uptill now

2888 ECGs have been performed.

AIDS Screening

PWA is one of the 19 sentinal centres in Pakistan by World Health Organisation (WHO) and National institute of health (NUH), Islamabad to perform routine AIDS/HIV screening on blood bags-and requests from the hospital and annual survey for the presence of HIV in the population.

CONSTRUCTION OF THE EMERGENCY WARD

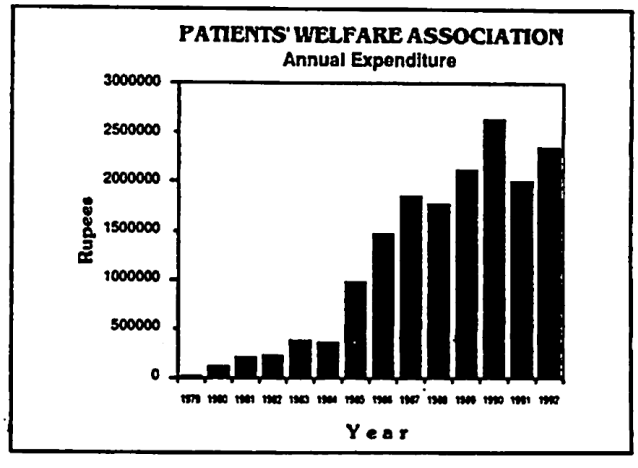
The old casualty of the CHK was unable to cater for the high influx of the patients and was absolutely useless at the times of mass emergency such as the bomb blast. This was because of the condition of the ward and the outdated equipment used by the doctors.

PWA in response to the patient's needs, commenced on multiple fund raising schemes for the reconstruction of the casualty. The new casualty was completed on the 31st July, 1988. Constructed at a cost of Rs. 3.4 million, the new casualty has a working area of 7650 sq. ft., as compared to the old one which had only 2500 sq. ft. It has a 30 bed male ward and 16 bed female ward. The casualty includes an 8 bed trauma room. orthopaedic procedure room, dog bite room, dressing room, central oxygen and suction unit with bed side attachments and separate staff working area. At the completion of the project, the casualty was handed over to the hospital administration.

FINANCIAL RESOURCES

Uptill now PWA has generated Rs. 16.472 million, though fund raising activities, zakat by the Govt and people etc. With the ever expansion of the association, the funds generated are falling quite short of target.

Year	Expenditure (In Rs.)
1979	24,555
1980	123,004
1981	211,534
1982	229,960
1983	382,733
1984	362,018
1985	975, 687
1986	1,465,231
1987	1,849,805
1988	1,774,456
1989	2,127,529
1990	2,641,001
1991	2,001,389
1992	ε (approx) 2,300,000



FUTURE DEVELOPMENTS

For over Fourteen years PWA has been struggling to upgrade the quality of medical facilities provided to the patients coming to the CHK. It has gone a long way in providing FREE OF CHARGE medical facilities to indigent patients. However, the beneficiaries of these facilities appear to be confined to a limited number as compared to the number of patients required the services and the demand is ever increasing.

PWA's aim is to provide the basic medical facilities to all the patients coming to CHK, by expanding its various departments. PWA's future projects includes.

Research Institute

The PWA is working on a disease oriented research institute, to work proactively in the prevention of certain diseases and to work on prevalent diseases with a view to find cost effective cures for the same.

Thalassemia Centre

AS a part of our research institute, a thalassemia centre is being formulated, which would not only give immediate management facilities like pack cells and Desferol injections, but would also provide for routine investigations of the patients. Further more, a bone marrow transplantation unit would be the ultimate target in this respect.

LIMITATIONS

The PWA members are full of zeal to work for humanity. They have worked very hard to establish PWA. The main hinderence in its working is the lack of funds.

If the funds are not forth coming, the whole PWA programme will be in jeopardy and it is for this reason that the PWA will need to turn to philanthropic donors both within and outside Pakistan.

A NEED OF THE TIME

By

Dr. Saeeda Haider

A new unit was added to the Civil Hospital Karachi two years ago, the Surgical Intensive Care Unit, (SICU) opening a way for advanced medical technology to be housed in this institution allowing for higher levels of therapeutic intervention while taking care of patients and their diseases.

The development of the SICU is a direct response to the need of the times. The stimulus coming from a desire to be able to save those critically ill in whom the risk could be averted by active and often invasive therapeutic measures unlikely to be available in a normal ward, as the team and set up has to be especially geared to deal with such patients. At the same time ICU should not be considered a repository of patients with hopeless prognosis since this leads to exhaustion of limited resources. A distinction though is often not easy between patients having ailments that ought not to be treated because they can not be successfully treated and the ones who would benefit. The term life support in the first group is inappropriate since continued intervention can only prolong dying, not support life. On the other hand statistical benefit is observed in post operative care of surgical patients needing systemic support for a limited period of time after major surgery since the advent of SICU.

Patients have not only benefited but have contributed to the knowledge of those dealing with them helping to evolve methods most suited to our circumstances hence improving cost - benefit ratio as well as final out come.

The set up of this unit matches global standards. It has a specially designed lay out with eight beds. Central suction and piped oxygen inlets are provided on each bed. A liquid oxygen tank ensures an abundant and uninterrupted supply of oxgen at a proper pressure necessary for the correct functioning of the sophisticated ventilators often needed for respiratory support in post operative period. Necessary monitoring devices inclusive of pulse oximeters, capnographs, ECG, noninvasive and invasive monitoring of pressures help greatly in clinical decision making and over all patient care. X-ray facility and arterial blood gases are available round the clock which are amongst essentials in the management of patients admitted to this unit.

But all these gadgets are paled into insignificance in the absence of trained paramedical staff. Motivated and dedicated staff with goal orientation make the hallmark of any critical care unit. It is a highly demanding speciality and it takes a great amount of patience and dedication to look after the critically ill. Constant supervision and tender care are the main stays, the outcome still at times being depressing, SICU is fortunate in having such a team of workers of which the Civil Hospital Karachi should be truely proud of.

The cost had been prodiguous to establish and maintain this glamorous life saving facility. Huge finances are required to provide salaries of the speically trained staff plus to have an abundant and constant supply of expensive medicines, disposables etc. The cost per patient per day is Rs. 1500/- to Rs. 2000/- in comparison to Rs. 4000/- to Rs. 5000/- in a private sector hospital and even these expenses are convered in the SICU by the sponsors. Financial constraints were a hurdle between masses and modern critical care medicine before the commencement of the SICU at Civil Hospital Karachi.

The Government has been extremely encouraging in the setting up of this unit. It gave incentive and paved the way by providing finances to purchase some of the most expensive and useful monitoring and system support equipment essential for this set up. The renovation of the premises as well as other essentials required for the unit were made available by efforts of the members of the Department of Anaesthesia who managed to motivate sponsors to this end.

Though no maintenance budget is allocated for the SICU so far part of the staff are employees of the health department, Government of Sindh. The possibility of a regular budget for salaries and maintenance is being explored and the subject is under consideration by the authorities.

For the present drugs are donated generously by multinational and national pharmaceutical companies and social welfare organizations like Khaadim-e-Insanyat.

"Friends of the SICU" is the name coined for philanthropic individuals who share the burden of maintenance as well as help in provision of drugs and disposables, and members of the Department of Anaesthesia who contribute to finances on regular basis.

The successful running of this SICU is attributable to the "FRIENDS OF SICU" without whose co-operation so many deserving patients would be deprived of the necessary care offered at the SICU of Civil Hospital Karachi.

Statistics are more enlivening than a novel. The data collected over the last two years of patients admitted to the SICU is as follows:

SURGICAL INTENSIVE CARE UNIT

STATISTICS - YEAR 1991

Total Number Of Admissions	- 347
Deaths	- 46
Patients Shifted To Ward	- 301
Mortality Rate	- 13.25%

Break up of total Admissions

GENERAL SURGICAL UNITS		OBS & GYNAE UNITS	
UNIT - I	- 28	UNIT - I	- 22
UNIT - II	- 36	UNIT - II	- 40
UNIT - III	- 29	UNIT - III	- 39
UNIT - IV	- 26		
UNIT - V	- 17		
UNIT - VI	- 21		
TOTAL	157	TOTAL	101
ORTHOPAEDIC SURGERY		MEDICAL UNITS	
UNIT - I	- 13	UNIT - I	- 1
UNIT - II	- 15	UNIT - II	- 2
UNIT - III	-	UNIT - III	- 1
TOTAL	28	TOTAL	4

NEUROSURGERY	- 36
ENT	- 14
EYE	- 4
PAEDIATRIC SURGERY	- 8
VASCULAR SURGERY	- 2
UROLOGY	- 7
PLASTIC SURGERY	- 1
BURNS WARD	- 1

Statistics Of Surgical Intensive Care Unit Based On Type Of Surgery

Laparotomies	- 77	Oesophagectomies	- 3
Hysterectomies	- 21	Tonsillectomies	- 1
LSCS	- 43	Appendicectomies	- 3
Cholecystectomies	- 13	Orchidectomies	- 3
Craniotomies	- 14	Bronchoscopies	- 2
Thyroidectomies	- 11	Amputations	- 2
Internal Fixations	- 14	D & E	- 1
Prostatectomies	- 4	V.P. Shunt	- 2
Tracheostomies	- 5	E.U.A.	- 1
Laryngectomies	- 1	Gun Shot Injuries	- 1
Nephrectomies	- 3	Urethral Dialatation	- 1
Laminectomies	- 2	Excision Tumour	- 1
Splenectomies	- 3	Retained Placenta	- 1
Adenoidectomies	- 1	Wound Debridement	- 1
Thymomectomies	- 2	Femoral Artery Repair	- 2
Colostomies	- 11	Aortic Bypass	- 1
Thoracotomies	- 2		

STATISTICS - YEAR 1992

Total Number Of Admissions	- 464
Deaths	- 59
Patients Shifted To Ward	- 405
Mortality Rate	- 12.71%

BREAK UP OF TOTAL ADMISSION

General Surgical Units.	No. of Admissions	Deaths
UNIT - I	- 27	- 3
UNIT - II	- 25	- 2
UNIT - III	- 25	- 3
UNIT - IV	- 78	- 13
UNIT - V	- 19	- 2
UNIT - VI	- 16	- 2
TOTAL	190	25

OBS & Gynae Units	No. of Admissions	Deaths
UNIT - I	- 47	- 6
UNIT - II	- 55	- 6
UNIT - III	- 35	- 3
TOTAL	137	13

Medical Units	No. of Admissions	Deaths
UNIT - I	- 1	- 1
UNIT - II	- 2	- 0
UNIT - V	- 2	- 2
C.C.U.	- 2	- 0
TOTAL	8	3

	No. of Admissions	Deaths
Neurosurgery	- 32	- 5
ENT	- 18	- 0
EYE	- 2	- 0
Vascular Surgery	- 6	- 2
Institute Of Urology & Transplantation	- 16	- 4
Plastic Surgery	- 4	- 1

STATISTICS OF S.I.C.U.
BASED ON THE TYPE OF SURGERY

Laparotomies	- 113	Dilatation & Evacuation	- 2
Oesophagectomies	- 5	Tubal Ligation	- 6
Thyroidectomies	- 3	Eclampsia	- 9
Cholecystectomies	- 17	Caesarean Section	- 89
Appendicectomies	- 1	Hysterectomies	- 37
Thoractomies	- 3	Extra Capsular Cataract Extraction	- 2
Prostatectomies	- 14	Femoral Artery Aneurysm	- 1
Renal Transplantation	- 6	Carcinoma Cheek	- 3
Bladder Growths	- 4	Brachial Plexus Injury	- 1
Pyelolithotomies	- 2	Nasal Atresia	- 1
Nephrectomies	- 3	Cerebro-Vascular Accident	- 1
Nephrostomies	- 1	Guillain Barre Synd.	- 1
Craniotomies	- 25		

AN UPDATE ON DEPARTMENT OF OPHTHLMOLOGY AT CIVIL HOSPITAL, KARACHI

By

Dr. Fawad Rizvi, Dr. Mansoor Farooqui, Dr. Idrees Adhi

The service of the Department of Ophthalmology is one as old as the Civil Hospital itself. It started functioning in old premises of Civil Hospital, Karachi, rendering best ophthalmic care according to the facilities available at that time. The credit goes to the untiring efforts of the doctors of the department to keep abreast with day to day changing technology.

In early 1991 the department was shifted to a newly built premises and now the department proudly holds not only a new building but also offers advanced ophthalmic care.

The OPD, run on daily basis, is attended by aproximately 150 patients per day with facilities of 50 beds, available for admission, equally distributed among male/female wards. The department of Ophthalmology, Civil Hospital not only serves as a primary care unit but also works as a "Referral Centre" for problem oriented cases throughout the province of Sindh and Baluchistan.

The department has two elegantly built operation theaters which are fully equipped with facilities for all kinds of microsurgical techniques. Routine operations like Cataract Extraction to sophisticated surgeries like Intraocular Implantation Retinal Detachment Surgeries and Vitrectoies are carried out with comparable results elsewhere.

The department also houses highly advanced diagnostic unit, where facilities of Imaging (Ultrasound), Field analysis (Automated Parimetry), Keratometry, Fundus Photography, Angiography, (Fundus Fluorescence Angiography) are readily provided to the needy patients.

The recent arrival of Lasers (YAG - Laser, ARSON - Laser) has made the department capable of rendering the latest modes of treatment in the medical and surgical ocular problems.

Academically the department has ably earned reputation of one of the best Postgraduate teaching institute in Pakistan. Organized training of Junior Ophthalmologists and regular seminars add enormously to the recent knowledge in Ophthalmology.

The department holds the proud privilege of being the host of various International Ophthalmic Conferences held in Karachi, contributing maximum number of scientific papers than any other unit in Pakistan. This was well acknoledged by the Ophthalmic community and as such the department was given the first prize for best scientific paper of the Annual Conference of Ophthalmological Society of Pakistan for the year 1991, 1992.

Modern ophthalmic service for the common people is the motto of the department. We strive to learn and impart the benefit of our knowledge for better eye care.

NEW DEVELOPMENT IN NEUROSURGERY DEPARTMENT

The Neurosurgery Department has acquired a whole body CT scanner which was commissioned in January 1993. A state of the art myelography table has also been installed within the unit which is going to be commissioned by the middle of May 1993.

The Department has developed a special interest in transphenoidal pituitary surgery and stabilizaion of spine in trauma and spinal tuberculosis and in the treatment of Scoliosis. Over the last two years a substantial number of patients have been treated for spinal tuberculosis with antero-lateral decompression and stabilization with Webb - Morlay and Harrington system with excellent results.

FROM A DEPARTMENT TO AN INSTITUTE

By

Dr. Hamad Ather

Diseases of the kidney are very common in our province of Sindh. to quote some pertinent examples, and estimated 5% of the population, roughly 1.5 million, will suffer from stone disease during their life time. Another 1 million will have an episode of urinary tract infection, but more importantly, about 3,000 new patients will suffer from end-stage renal failure every year, needing very costly dialysis or kidney transplantation to support life.

Modern treatment is expensive and beyond the means of the vast majority of our population. Unless these modalities develop in public sector hospitals, only the very rich can avail treatment privately.

It was this desperate condition, particularly renal failure and complications of stone disease, that the Institute has sought to redress by rising to the challenge of providing specialized care, free, to deserving patients.

THE BEGINNING

The Institute started as an 8 bedded unit in 1972 situated in a portion of the Burns Ward in Civil Hospital, Karachi. From urology surgery, the Institute has progressed to performing sophisticated and high technology medical services. At present the Institute provides diagnostic and curative care to over 57,000 patients annually

Listed below are some important landmarks of addition of new services that provide an insight into the philosophy of the Institute, which is to strive to provide high technology treatment to the poor and the deserving free of cost:

MILESTONES

1972	Sturcture Clinic	1985	Renal Transplantation
1975	Peritoneal Dialysis	1988	Auto Analyzer
1977	Haemodialysis	1989	Percutaneous Renal Surgery
1983	Image Intensifier	1990	Lithotripter
1984	Ultrasound Examination	1992	Uretero Renoscopy
1985	Tissue Typing	1992	Laser Surgery

SPECIALIZED SERVICES PRESENTLY BEING GIVEN FREE TO PATIENTS

The Institute provides outpatient facility, investigation, surgery and specialized high technology services such as dialysis, lithotripsy and transplantation to more that 57,000 patients in a year.

1. The Institute registered 6,900 in-patient admissions, provided emergency care to 13,786 patients and attended 30,568 patients in eight specialized outpatient clinics last year.

2. The 24-station Dialysis Unit carried out more than 17,650 dialysis sessions for patients of end stage renal disease last year.

3. The Transplantation Unit has performed over 225 successful kidney transplants since 1986, forty five of them in 1992. The results of transplantation are equal to centres of excellence abroad i.e. 85% five year patient survival.

4. The Lithotripsy Unit established in 1990 is the only public lithotripter in Pakistan, it has treated over 3,000 patients so far. The lithotripter has increased the turnover of patients requiring stone removal four folds and these patients are exclusive of the over 5,000 annually who have open surgery for kidney stones.

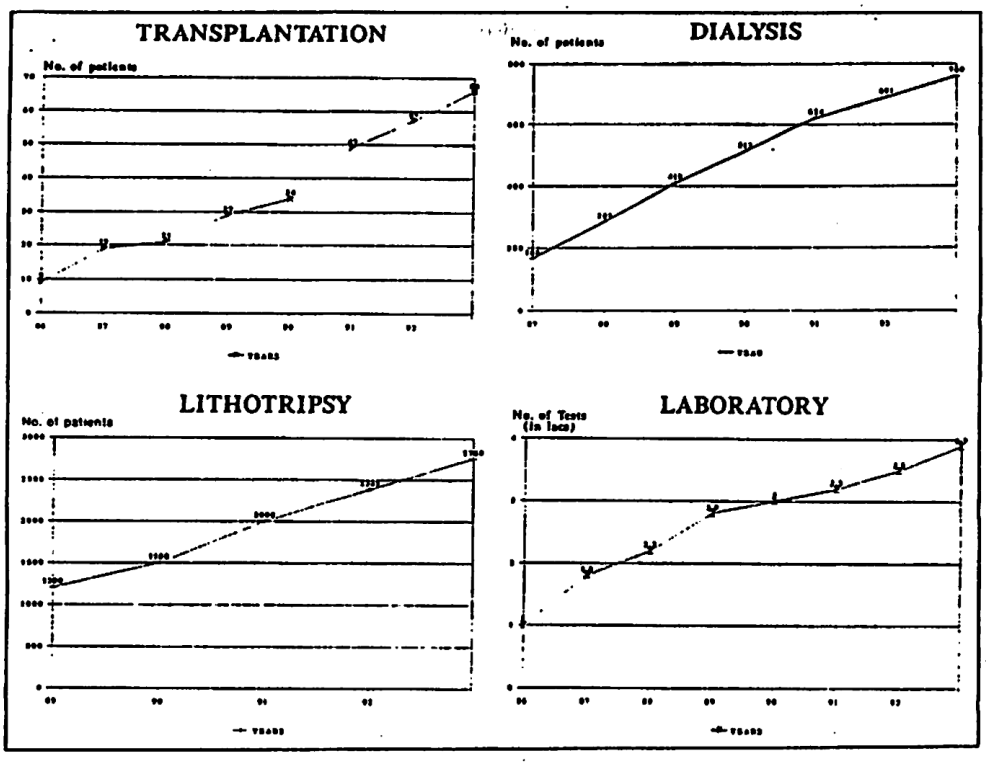
5. The Laboratory Service carries out over 3,20,000 tests of hematology, biochemistry, bacteriology and histopathology every year. Sophisticated tissue typing test for patients undergoing kidney transplants were done on 2783 patients and their donors.

6. More than 9,656 patients had specialized diagnostic investigations including ultrasound scanning, uroflometry, renal angiography while 1,250 patients had percutaneous renal surgery performed on them last year.

GROWING PATIENT POPULATION AND PROBLEMS OF FUNDING

In the absence of specialized facilities for kidney diseases in public sector hospital in the province there has been an exponential rise in the number of patients coming to the Institute for free treatment. Unless more centres are created, more so in the Government sector, the Institute will find it difficult to

bear the fast growing patient influx and the severe financial burden with present budgetary constraints. The growing patient population figures are given below:



HYSTEROSCOPY

By
Prof. Khursheed Noorani
Bynac Unit IV
Lyari General Hospital Karachi

INTRODUCTION

It is an endoscopic procedure done for diagnosing and treating intra uterine lesions. As history shows earlier attempts were made to examine female urological system, about 200 years back by Bozzini; however, this did not gain much popularity due to inadequate distension media and light system. Since the invention of Cold Light system, better distension media and continuous irrigation system and in addition, the development of Micro Hysteroscopy by Hamou, has revolutionized the field of hysteroscopy.

HISTORICAL BACKGROUND

Author	Year	Technique	Dia-meter(mm)	Remarks
Desormeaux (Fr)	1865	Open tube, external alcohal, lamp		Used as a cystoscope
Pantaleoni (G.B.)	1869	Desormeaux tube	10	First hysteroscopy, silver nitrate application
Nitze (Germany)	1879	Optical endoscope, Cytoscope		Distal electric light source
Duplay & Clado (Fr)	1878	Open tube, external light source		Diagnostic use
David (Fr)	1908	Close tube, internal light source	10.5	Used for observation and cauterization
Heineberg (U.S.A.)	1914	Irrigation by water		inadequate distension
Rubin (U.S.A.)	1925	Cystoscope, CO_2 insufflation	15	Prior dilatation
Seymour (G.B.)	1926	Continuous aspiration		Directed biopsies
Van Mikulicz (Ger)	1927	Double circuit irrigation system		
Gauss (Germany)	1928	Pressurized irrigation		
Schroeder (Germany)	1934	Pressurized and controlled irragation	10	
Segond (Fr)	1937	Foroblique optical system	8	Lateral vision
Fourestier, Gladu, & Vulmiere (Fr)	1952	Quartz light transmission		Cold light sources
Mohri & Mohri (Jpn)	1954	Fibroscope		Embryoscopy,tubaloscopy
Norment (U.S.A.)	1956	Transparent balloon	9.5	No possible directed biopsy
Palmer (Fr)	1957	Modified segond edosccope, better illumination	5	
Silander (Sweden)	1962	Balloon at distal and of hysteroscope	7	No possible directed biopsy
Marleschki (Ger)	1966	Contact hysteroscope		No Panoramic vision
Edstrom & Fernstrom (Sweden)	1970	Illumination by cold light source	6	

Lindemann & Mohr (Germany)	1971	Cervical adaptor CO_2 distension	7	Anesthesia
Proto & Gaujoux (Fr)	1972	Pneumo-hysteroscope	4&8	CO_2 insufflation
Vulmiere (Fr)	1972	Contact hysteroscope	6&8	No panoramic vision
Iglesias (U.S.A.)	1975	Resectoscope	8	Continuous irrigation
Lindemann (Ger)	1976	Controlled CO_2 insufflation, hysteroflator		
Hamou (Fr)	1979	Microhysteroscope	4	Panoramic and contact vision Magnification from x 1 to x 150 cellular vision
Hamou (Fr)	1984	Microhysteroflator		Electronically controlled CO_2 insufflation
Hamou (Fr)	1989	Hysteromat		Electronically controlled irrigation of liquid media

Now a days, hysteroscopy can be done as an out patient procedure with flexible as well as rigid hysteroscopes because of their fine diameter (3.6 m.m.) and (4 m.m.) without anaesthesia or with local anaesthesia, if required.

TECHNIQUE

After taking history and performing a vaginal examination, patient is put in lithotomy position. Vagina is cleaned with non-frothing antiseptic solution or saline. Anterior tip of the cervix is held with Volsellum, hysteroscope light and gas flow is checked properly. Hysteroscope is introduced in the cervical canal under vision so that if there is any pathology in the cervical canal, it will be diagnosed, internal os is visualised as it is dilated by the force of CO_2 or other liquid distension media. In thhis way, the cervical os will not traumatize otherwise blind introduction of instrument can cause damage to cervical os or bleeding. If cervical os is tightly closed and it is not possible to do the procedure, then one can dilate cervix with dilators.

Carbon dioxide should always be introduced through proper insufflator called micro hysteroflator which delivers CO_2 at variable pressure/variable flow. Besides, it is a very safe instrument and with it, the regulation of CO_2 is entirely autometic.

Light is generated by cold light source - Once the cervical os is crossed and the uterine cavity is entered a panoramic view of uterus is obtained. One proceeds gradually towards tubal orifices one by one. One can see exactly the gas going through the tubes if they are open, or realize increase in intra uterine pressure if the tubes are blocked. Any intra uterine pathology can also be diagnosed.

TIME OF EXAMINATION

In women who are menstruating, the most appropriate period is between 6th - 14th day of menses. During this time, isthmus is hypotonic so penetration is easier and endometrial changes are easier to interpret at this time than in luteal phase. There is also risk of disturbing an undiagnosed pregnancy.

DISTENSION MEDIA

Are either (1) gaseous i.e. Carbon dioxide with flow rate not exceeding 100ml/min & pressure not more than 200 m.m. of Hg, but flow of 30ml/min is sufficient to distend uterine cavity or (2) liquid media are 1.5% glycine or 5%, 10% or 20% glucose or Mannitol. Dextran 70 is not used now a because it can damage the instrument.

INDICATIONS, CONTRAINDICATIONS & COMPLICATIONS

INDICATION OF HYSTEROSCOPY **1) DIAGNOSTIC**
2) THERAPEUTIC

DIAGNOSTIC:

1) Abnormal uterine bleeding
   a) after abortions
   b) pre menopausal
   c) post menopausal
2) Intra uterine pathology
   a) polyps & myomata
   b) abnormal hysterosalpingogram
   c) screening adeno carcinoma
3) Sterility
   a) unexplained sterility
   b) abnormal hysterosalpingograms
   c) prior to I.V.F.
   d) intra uterine adhesions
4) Foreign bodies - displaced I.U.C.D.
5) Amenorrhoea

THERAPEUTIC
Polypectomy
Adhesiolysis
Removal of I.U.C.D. or foreign bodies

Removal of intra uterine stents
Myomectomy
Division of Septa
Septoplasty

CONTRAINDICATIONS

1) Pregnancy
2) Recent pelvic infection
3) Heavy bleeding

COMPLICATIONS

i) related to Anaesthesia
ii) related to distension media - liquid - gaseous

Complications with liquid and gas are insignificant, if delivered properly under control - CO_2 should be introduced with special hysteroflator under low pressure not above 150mm of Hq.

Liquid media like dextrose 5%, 10% or 20% Mannitol or Glycine 1.5% can be used under pressure not above 150mm with hystromiate without any complications.

Infection
if appropriate, sterilization is not done.
Trauma
Cervical laceration
Trauma to endocervical canal
bleeding
perforation

EXPERIENCE AT LYARI GENERAL HOSPITAL - GYN UNIT IV

In Lyari General Hospital, we have started hysteroscopy with flexible hysteroscope about 18 months back, and then in October 1992, we got a rigid diagnostic as well as operative hysteroscope.

We do hysteroscopies in all cases of infertility and abnormal uterine bleeding and all other indications shown above. At present, we are doing comparative study of Hysteroscopy and Ultrasonography for diagnosing

retained products of conceptions. We have done 20 such cases in which ultrasound showed retained products of conception but on hysteroscopy, only 9 cases showed retained products and 11 showed normal endometrium. Evacuation & Histology was done in all the cases and it was proved that Hysteroscopy was more accurate than Ultrasonography.

CONCLUSION

Though Hysteroscopy is not commonly used in our country, it is a very important precedure and should be done in all cases of infertility, A.U.B., habitual abortion, for treating intra uterine adhesion and in diagnosing precancerous lesions of endometerium. It can be used for sterilization as well. It can also be used for taking biopsies under vision. Resection of septum and endometrial ablation can also be done and one can avoid a Laparotomy and Hysterectomy.

Hysteroscopic surgery is more economical, stay of patient in the hospital is less, it is less painful and it can be done under local anaesthesia in some cases.

WARD REPORTS

SURGCAL UNIT I

Surgical Unit I is a 50 bedded Unit. Headed by Professor Abdul Karim Siddiqui. There is one Associate Professor (Dr. Abdul Aziz Dhedhis), one Assistant Professor (Dr. Iqbal Ahmed Shiekh,) one Senior Registrar (Dr. Tasneem Shireen) and Registerars out of which one has passed FCPS, are candidates for F.C.P.S. II and 4 are M.S. candidates Monday and Thursdays are operation days and Saturday is O.P.D. and emergency day. There are post graduate classes 4 days a week; on Saturday there is a journal reading session, on Sundays post emergency discussion, every Tuesday there is a seminar in which cases are presented by house officers and R.M.O.'s, on Thursday is a combined clinics pathological conference. Facilities available in the ward are of fine needle aspiration Cytology, ultrasound, G.I. endoscopy, piles clinic which includes ligation and cryo surgery. In addition Laparoscopy choledochoscopy and cystoscopy with TURP are also done by the Professor. Research projects going on in the unit are:

1. Incidence and pattern of thyroid disease
2. FNAC of abdominal masses under ultrasound guidance.
3. Feeding tube cystic duct cholangiogram cholecystomy
4. Results of band ligation and cryosurgery for piles.
5. Laparoscopic cholecystectomy
6. Value of repeat ultrasound in cases of abdominal trauma.

SURGICAL UNIT II

STAFF OF THE UNIT
Prof. Kishwar Nazli Mahmood
FRCS (Eng). FRCS (Edin). FICS (USA)

Assoc. Prof. Manzar Saleem
MBBS (Dow). FRCS (Edin). FICS (USA)

Senior Reg. Khalid Siddiqui
MBBS. MCPS

Total No. of Beds 44
Admission in 1992 598
Operations/Procedures
Elective 448
Emergency..... 153

RESEARCH PROJECTS

Chemotherapeutic Agents in advanced breast cancer, accuracy of FNAC & Mammography in breast diseases Mammographic diagnosis in breast pathology, Inflammatory breast diseases, Undescended testicle, testicular tumour, solitary thyriod nodule.

BREAST DISEASES DIAGNOSTIC CENTRE

The breast diseases diagnostic centre of surgical unit II. CHK registered 2049 cases of breast diseases in 1992. After formal registration the patients undergo a thorough clinical examination and evaluation. Depending upon the pathology appropriate medical or surgical treatment is carried out.

The unit holds the facility of conducting fine needle aspiration cytology as an indoor as well as outdoor service. A mammographic unit has been procured by the Hospital and will most probably by installed in the unit, in the coming fiscal year.

POSTGRADUATE WORK AND HONOURS

Teaching ward rounds, clinical meetings and weekly seminars are held regularly in surgical unit II. Currently there are 7 FCPS and 2 FRCS candidates in the ward. Apart from several candidates who hhave done postgraduation abroad our department holds the unique hhonour of 6 RMO's acquiring fellowship from the college of physicians & surgeons Pakistan over the last 5 years.

SURGICAL UNIT IV

Surgical unit IV is a 50 bedded general surgical unit. It has special interest in hepato-biliary surgery, we have dealt with 30 cases of obstructive jaundice due to carcinoma gall bladder, trauma to the CBD and carcinoma Pancreas.

During last year various types of hepato-enterostomies were performed and PTC was, done routinely in these cases pre-operatively, upper and lower GI endoscopy was also performed in our ward. Schlerotherapy was performed in number of cases of esophageal varices and patients who did not respond to it, underwent sburt procedure.

Undergraduate and postgraduate classes are routinaly held and all the 12 registrars are appearing for FCPS part II examination.

Ongoing projects of the ward includes;

1) Diagnosis of breast lumps by FNA as compared to open biopsy.
2) Epidemiology of Cholelithiasis and analysis of gall stones.
3) Reoperative surgery on biliary tract
4) Herniorrhapy under L.A.
5) Papers from our unit were presented during the last year in verious surgical conferences in the City.

SURGICAL UNIT V

The Surgical Unit V is a 42 bedded ward and is headed by Prof. M.A. Noorani, FRCS.

Dr.Bashir Ahmed Solangi, FRCS is working as Assistant Professor since last 2 years. Dr. Saeed Quraishy,. FRCS has recently joined as Assistant Professor in the unit.

There are 6 RMO's and PGs.

Regular Seminars and tutorials are held for the benefit of the House officers and RMO's.

The final year MBBS and third year MBBS who are posted in this unit are required to present important and interesting cases and discussions are held regarding these cases.

Prof. Noorani and Dr. Bashir Solangi have special interest in the field

of urology particularly in Endoscopic surgery.

Dr. Saeed Quraishy has special interest in Hepatobiliary Surgery and G.I.T. surgery particularly oesophageal surgery. With the co-operation of medical unit V, Dr. Saeed Quraishy performs Oesophagogastro-duodenoscopy and Colonoscopy and E.R.C.P.

We hope to receive resectoscopes and ureteroscopy which will facilitate endoscopic procedures (T.U.R.P and ureteroscopy) rather than open surgery.

All the major procedures like oesophagectomies, A.P.Rs., Cystectomies and urinary diversions have been performed by our unit.

SURGICAL UNIT VI

Surgical unit VI is 50 bedded ward with facilities of minor operation theatre & intensive care unit. It offers adequate medical care to all surgical cases admittedelectively and in emergency.

The unit incharge is Prof. Mohammad Sarwar, alongwith Associate Professor, Dr. Iqbal Memon, Senior Registrar Dr. M. Afzal, six Registrars & two Postgraduate Students.

Four of our RMO's/PGS have passed FCPS - I examination & completing their requirments and training for their fellow-ships. Regular daily rounds by the Professor, Clinical teaching of undergraduate students by senior & weekly clinically oriented discussion with the PGs. are the notable features.

Clinical meeting is held on every Saturday morning for all surgical units where emergency cases are discussed.

Sigmoidoscopic and cystoscopic procedures with Biopsies are the added facilities available.

ORTHOPAEDICS UNIT I

PERFORMANCE OF 1992

In 1992, 690 Cases were admitted in Ortho - I.

470 Cases were operated which included Internal Fixation of Fractures, Total Hip Arthroplasty, Hemi Arthroplasty, Corrections of deformations, Spinal problem etc.

SCIENTIFIC WORK IN 1992

The articles/write ups on recent advancement done by our unit:

1). Delayed infection in clean Orhopaedic Operation.
2). Tricep Arthroplasty.
3). Managements Diphyseal Fracture of Tibia.
4). T.B. Spine Conservative/Operative management.
5). Total Hip Arthroplasty recent advancements
6). Limb Salvage in Tumor.
7). Corrective Surgery for deformity of Childrens
8). Management of Pseudoarthorosis of Tibia.

ACADEMIC ACTIVITY IN 1992

In last year our academic activity included
Arrangement of Suminar and Symposium on:

1). Complication of Total Hip Arthroplasty.
2). Bilateral cemented and non-cemented. Total Hip Arthroplasty.
3). Gout.
4). Rheumatoid Arthritis.
5). T.B. Spine.

Arrangement of Classes for Post Graduate Students appearing for F.C.P.S. Part II.

Arrangement of Seminar for final year students to promote their interest and ability of speaking in audiance.

DEPT. OF ANAESTHESIOLOGY AND SURGICAL INTENSIVE CARE UNIT (CHK)

STAFF

*	Professor	- Dr. S. Tipu Sultan	D.A., FFARCS
*	Associate Professor	- Dr. Tasleem Alvi	D.A.
		- Dr. Haleem Kazi	D.A.
*	Assistant Professor	- Dr. Majida Karin	M.C.P.S.
		- Dr. M.K. Paracha	M.C.P.S. FFARCS
*	Senior Registrar	- Dr. Wajahat S. Malik	M.C.P.S.
*	Consultants	- Dr. Rehana Ehsanullah	M.C.P.S.
		- Dr. Amir Ahmed	M.C.P.S.
		- Dr. Gaitee Ara	M.C.P.S.
		- Dr. Mirza Shareef	M.C.P.S.
		- Dr. Rehana Yaseen	M.C.P.S.
		- Dr. Amin Suleman	M.C.P.S.
		- Dr. Saeeda Haider	M.C.P.S.
		- Dr. Tayyab	M.C.P.S.
		- Dr. M. Hussain	M.C.P.S.
		- Dr. Nuzhat Zafar	M.C.P.S.

* Resident Medical Officers and Postgraduate Students

* A varying number of RHOs & P.Gs form the strength of the department at different times.

RESPONSIBILITIES

A. Clinical

* Anaesthesia services are provided for elective surgery done by 19 surgical units which operate in 10 suites, six days a week.

* Emergency cover round the clock - Emergency Surgery can be done in five theatres.

* Eight bedded surgical intensive care unit a high dependency unit

providing post operative care to the critically ill.

* Pre-anaesthetic check up services.

B. Teaching and Training Programmes

* Lecture courses organised bi-annually of two-three weeks duration.

* Morning tutorials daily

* Symposium and seminars

* Training course for anaesthesia technician of one year duration.

C. Clinical Research (During Year 1992)

* Esmolol 0.5 mg/kg body wt and 1.5 mg/kg body weight to attenuate the cardio vascular response to laryngoscopy and endotrocheal intubation.

* To compare the analgesia and side effects of tramadol/pentazocine.

* Effect of Halothane 0.5% and Enflurane 10% to conduct Caesarean section.

d. Members of the staff who passed their exams from College of Physicians and Surgeons of Pakistan over the years.

* F.C.P.S. I - 3
* M.C.P.S. - 64

E. Trainees who Proceeded Abroad.

To date eighteen trainee registrars have proceeded to Ireland and England to continue post-graduate training and take the fellowship examination, they are under sponsorship programmes

3 have cleared F.R.C.A. I
3 have cleared F.R.C.A. II
3 have cleared F.R.C.A. III

DEPT OF ANAESTHESIOLOGY LYARI GENERAL HOSPITAL

STAFF

- Head of the department - Dr. Zafar Shahid (MCPS)
- Resident Medical Officers - 10

WORKING SCHEDULE

- Operation Tables - 10
- Emergency cover round the clock
- Regular Clinical meeting locally and with collaboration of PSA Karachi.
- Anaesthesia service provided to:

1- General Surgery
2- Orthopaedics
3- E.N.T.
4- EYE
5- Gynae/Obs.
6- Psychiatry

- Number of operation in 1992 was 2980 including emergency surgery

MEDICAL UNIT I

Medical Unit I is a 44 bedded ward with a 4 bedded ICU working as a part of Civil Hospital Karachi, carrying out a number of academic actracts which are detailed below:

1) Daily Tutorial rounds by the Senior Staff of the unit.

2) Problem case discussion and Journal club meeting every Wednesday in the ward.

3) Participation of the ward in Seminar held jointly by Medical Units I, II & V.

4) Case presentation in clinical meeting held in D.M.C. on Thursday.

5) A number of postgraduate student research activities are being carried out in the ward which include.

   a) Study on the incidence of Thyroid disorders, which is being conducted by Dr. Zaman Shaikh, Asst. Prof. Med 1.

   b) A detailed study on the incidence clinical presentation and treatment of "Delta Hepatitis is being carried out by Dr. Arshad Ali, a postgraduate student in the ward under the supervision of Dr. Khalid Mahmood.

   c) Clinical evaluation and problem oriented study on "Irritable Bowel Syndrome is being conducted under the auspices of Dr. Khalid Mahmood, Asst. Prof. Med I CHK.

   d) Dr. Majeed Shaikh & Dr. Sohail Abrar working as Registrars in the ward are formulating their dessertations for FCPS Part II examination, their topics of considerations being:- (i) Liver Abscess in Tropics (ii) Sub Acute Bacterial Peritonitis.

   e) As a part of teaching hospital, the Unit's senior teaching staff holds daily regular undergraduate teaching session for students posted in Medical Unit I.

MEDICAL UNIT II

STAFF

Professor	Dr. Ali Nawaz Choudhri	F.R.C.P.
Associate Professor	Dr. Salahuddin Afsar	M.R.C.P.
Senior Registrar	Dr. Zaheer Abbass Jafree	F.C.P.S.

Post Graduate Achivement

F.C.P.S.	(Medicine) passed	Two R.M.O.s
FC.P.S.	Part II training	Five R.M.O.s
M.R.C.P.	Part I training	Two R.M.O.s.
	Part II training	Three R.M.O.s.

Post Graduate Teaching Programme

Saturday	Case Presentation & Discussion	9-15 a.m.
Tuesday	Bronchoscopy	9.15 a.m.
	Combined meeting & Case presentation in Medical 5	12.15 p.m.
Wednesday	Journal Club.	9.15 a.m.
	G.I. Endoscopy Ultra sound	10.30 a.m.
Thursday	Combined Clinical meeting at Arag Auditorium	9.00 a.m.
	Weekly meeting about deaths	11.00 a.m.

Under Graduate Teaching

Daily Bed side teaching for 3rd year and final year.
Classes at Arag Auditorium Twice weekly.

Diabatic Clinic

Daily Diabetic Clinic at CHK is run by Med. Unit II

Research Papers Presented/Published

1. Oxygen Saturation changes during Fiberoptic Bronchoscopy under Local Anaesthesia. Published in J.P.M.A. 1992.
2. Electrocardiographic changes during fiberoptic Bronchoscopy under Local Anaesthesia. Published in Pakistan Journal of Cardiology. 1992.
3. Experience of Enoxacin in Enteric Fever.
   Published in International Journal of Therapeutics Holland 1992.
4. Respiratory Tract involvement in Auto Immune Diseases.
   Presented in Symposium of D.M.C. 1992.
5. Case Report of Primary Pulmonary Amoebiasis
   Published in J.P.M.A. 1992.

On Going Research.

1. ECG & Oxygen Saturation during Upper G.I. Endoscopy, in elderly
2. Serum Uric Acid & Lipid Profile changes during Fasting.
3. Correlation of ECG, X Ray & Echocardiographic findings of Left

Ventricular Hypertrophy in Hypertensive patients.

4. Peripheral Neuropathies in Diabetes.
5. Comparative study between conventional Xylocaine spray and Nebulized Xylocaine during Bronchoscopy

Other Facilities

4 Bedded I.C.U., ABG Monitoring facility, Ultrasound, E.C.G. Monitor, Pulse, Oxygen Saturation, B.P. Monitor, Independent Laboratory, Phonocardiograph, Heparin Pump, Nebulizer, Respirator, Bronchoscope, Gastroscope and Colonoscopic Facilities.

Total Admission in 1992: 1348

MEDICAL UNIT III

STAFF

1. *Professor Dr. Mukhtar Azeem Mirza
   F.R.C.P. (London) F.R.C.P. (Edin) F.C.P.S. (Pak
2. Assocate Professor Dr. M. W. Islam
   F.R.C.P. (London) F.R.C.P. (Edin)
3. Assitant Professor Dr. K. U. Makki
   F.C.P.S., M.C.P.S.
4. Consultant Physician Dr. Faiza Samad
   F.C.P.S., M.C.P.S.
5. Assocate Physician Dr. Nand Kumar

* Prof. Mirza is one amongst a few Professors of Medicine, who have been honoured by Triple Fellowship in recognition to their major achievements in the field of Medicine

Total No. of Beds

Male 20
Female..... 20
ICU 10
Total..... 50

Total No. Admission in 1992 1143

Every Monday.....OPD & emergency day
Every Vth Thursday.....OPD & emergency day
Every Vth Friday.....Emergency Day

Mode Of Admission - Through..... OPD & Casualty.
Total Death 117

- Hepatic Encephalopathy ..... - 80%
- C.V. As ..... - 32%
- Uraemia ..... - 15%
- Diabetic Ketoacidasis ..... - 6%

MAJOR PROCEDURE BURING 1992

Gastroscopy 753
Sclerotheraphy 73
Colonoscopy 107
Sigmoidoscopy..... 512
Ultra Songography (Indoor - Outdoor pt.) 1170
Liver Biopsy 750
Pleural Biopsy 23
Renal Biopsy 76

Total No. of RMOs..... 10

R.M.O.s F.CP.S. I 6
RMO. MRCP- I 1
Total Postgraduates other than RMOs..... 3
Successful Postgraduates..... 1

Note: Five R.M.O.s will appear in F.C.P.S. Medicine in forthcoming July 1993 Examination.

RESEARCH PROJECTS

1. Cardiomyopathy - A growing problem in our society.
2. Ca. Bronchus in non-smoker population.
3. Increased incidence of Drug induced renal failure.
4. Reflux Oesophogitis A common problem seen with upper G.I. Endoscopy
5. Early detection of ulcerative collitis through Colonscopy
6. Significance of urine specific gravity in CVAs
7. Various presentations of connective tissue disorders.
8. Study of Insulin levels in NIDDM.
9. Upper G.I. Tuberculosis.
10. Liver Biopsy - a study of 50 cases of chronic liver disorders.
11. Double blind study on Isradipine
12. Frequency and mode of presentation of Sickle thalasaemia in our population.

MEDICAL UNIT V

STAFF OF THE UNIT

Porfessor Dr. M. Shafi Quraishy
M.R.C.P. (U.K.) F.R.C.P. (Edin) F.R.C.P. (Lon)

Assistant Professor Dr. Tahir Hussain M.R.C.P. (U.K.)

Senior Registrar Dr. A. Rauf Memon. F.C.P.S. (Pak)

Total No. of Beds

General 36
Special..... 6
Intensive Care:..... 4

Total No. of admission in the year 1992..... 774
Total Deaths..... 107
Mortality Rate: 13.82%

EXTRAORDINARY WORK/OPERATION

The Unit has a special bias towards Gastroenterology and has a very active Endoscopic unit. In the year 1992, a total of 1669. Gastrointestinal endoscopies were performed. Diagnostic and therapeutic E.R.C.P. services have also been started.

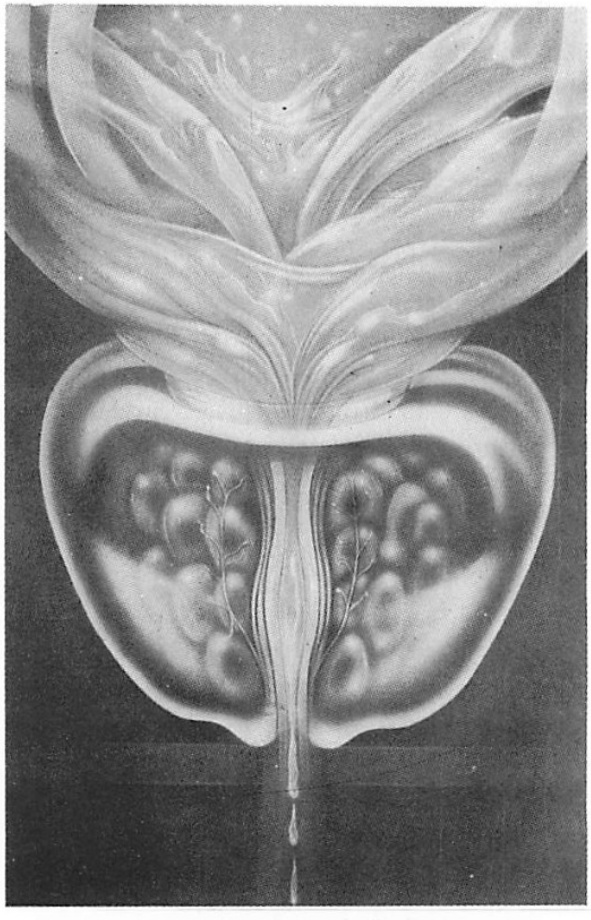
RESEARCH PROJECTS

Mortality Study in General Medicine. Colchicine versus non-colchicine treatment in Cirrhosis. Helicobacter Pylori infection in Peptic disease. Developed Helico-urease Test in association with University of Karachi. Antibodies as a marker of active Helicobacter Pylori infection. Incidence of HCV infection in patients with cirrhosis of liver. Bronchoscopy in patients with Haemoptysis and normal chest X-Ray. Incidence, Prevalence, Complications and Prognosis of Diabetic Ketoacidosis. Incidence of Intracerebral Haemorrhage.

Postgraduate students 3

Benign Prostatic Hyperplasia

A major urologic problem of an ageing male population



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RECENT ADVANCES

11TH ANNUAL SYMPOSIUM

LAPAROSCOPIC REVOLUTION IN SURGERY

By

Dr. Shafiq-ur-Rehman
Assistant Professor of Surgery
Dow Medical College & CHK.

Laparascopy is not new, being first performed in 1901. This technique was initially used only for visual examination of the abdominal cavity. Subsquently auxillary trocars were introduced through which instruments could be inserted to perform laparoscopic guided biopsies. During 1970's the pioneering efforts of engineer - gynaecologists Kunt Semm of Germany showed that Pelviscopic surgery was a possibility. He designed instruments and introduced techniques that facilitated laparoscopic surgery. Advances in optics and fiberoptic light transmission improved the images, but it was not until video technology was harnessed to the laparoscope that the surgeons eye was freed from monocular laparoscopic eye piece, and all members of operating team were able to observe simultaneously. The first laparoscopic cholecystectomy were performed by E.Muhe of Bobingen, Germany (1985) and P. Mouret of Lyon France (1987).

Dissemination of the procedure gained momentum as it crossed the Atlantic ocean setting in motion a revolution in surgery whereby tens of thousands of general surgeons have been trained in basic Laparoscopic techniques and hundreds of thousands of" minimal invasive" procedures have been performed.

Once the advantages of Laparoscopic cholecystectomy became obvious in terms of reduced pain, diminished hospitalization time and disability, compared to traditional open cholecystectomy, both patients and physicians clamored for laparoscopic surgery. The startling clarity of the video laparoscopic images combined with an increasing familiarty with Laparoscopic manipulation of tissue, ensured improvisation and expansion of the armamentarium of Laparoscopic operations.

The rapid development in Laparoscopic surgery can be seen by the fact

that new operations are being developed every month and today the fact is almost any intra abdominal operation one can name had already been attempted some where in the world. Laparoscopy today is being used for both diagnostic and therapeutic procedures, it is being employed for both emergency and elective situations. It is being performed under both general and local anaesthesia.

Laparoscopic Cholecystectomy is being internationaly accepted as procedure of choice, where as stone in CBD is being dealt with either ERCP papilotomy or by open method, more recently laparoscopit exploration of CBD is being delevoped by dilatation of cystic duct and endo -choledocosopy is being used to extract CBD stone by means of Dormia basket.

While new operative procedures are being critically evaluated more and more procedures are gradually gaining acceptance, where as in others the arguments are fading. A good example is of laperoscopic colectomy when first started it was greatly criticised later it become aceptable to do laparoscopic colectomy for benign disease only because of fear of incomplete nodal clearance in malignant disease, but more recently trials suggest adequate nodal clearance, but the need for long term follow up is stressed which will clear the situation. Another area of controversy is laparoscopic hernia repair because of fear of high recurrence rate and arguably little benefit over coventional method, indeed when laparoscopic inguinal hernia repair was developed there was high recurrence but the technique has now been refined and it is hoped it will pass the test of time.

At present numerous trials are underway on various types of laparoscopic vagotomy and the one being favoured is laparoscopic posterior truncal vagotomy and anterior seromyotomy followed by truncal vagotomy and balloom dilatation of pylorus or gastrojejunostomy initial result of both these procedures are very encouraging.

While it is easy to recommend laparoscopic procedure for major surgical operations normally requiring laparotomy it is difficult to justify laparoscopic procedures for smaller operations like appendicectomy, hernia repair etc. There are two advantages of doing smaller procedure; it improves on manual dextrity of the surgeon and also reduces hospitalization for the patient. Although the benefit may only be marginal.

The scenario in Pakistan is entirely different. Surgeons here are still

finding it difficult to accept laparoscopic surgery as an alternate to open surgery. The other significant difference is that laparoscopic surgery is being practiced almost exclusively in private sector and the laparoscopic equipment is owned by individual surgeons rather than hospitals and institutions. This has lead to a cold war among Laparoscopy Surgeons trying to achieve both statistical and financial gains due to creation of a situation of monopoly.

Laparoscope is almost not existant in public sector. Civil Hospital Karachi and JPMC are the two biggest institutes where the laparoscope has been acquired but due to disagreement among local surgeons it has not been put to practice.

It is highly desirable to have laparoscope at Civil Hospital Karachi and other institutions through out the country, as there are distinct advantages of institutionalized practice over individualistic practice. The most important benefit is we start serving the patients and the technology, rather than our own personal ego.

As laparoscopic surgery is a relatively new technique, training of surgeons, is an important aspect. With institutionalization it will be easier and more efficient to impart proper training which will be freely and extensively available to all the surgeons keen to adapt this new technology.

Short courses and work shops only give an insight but are not sufficient enough to produce fully trained laparoscopic surgeons. There is no better way of learning than to work in association with a practising laparoscopic surgeon. And this can only be achieved by institutionalized practice.

I should conclude by saying that laparoscopic revolution in surgery has not only started it is well underway. Armed with the new hammer of theraputic laparoscopy, general surgeons have looked for apropriate "nails" in the abdominal cavity. No organ or procedure appears immune. As new operations are developed certain concerns must be raised. Just because a procedure can be performed using laparoscopic guidance does not mean that it should, and basic surgical principles must be followed. Laparoscopy is the new approach to the old problems, but the ultimate judgement of these operations is afforded only with the passage of time. When embarking on new procedures it is imperative tht the surgeon remember the basis of his or her craft, and adheres to these principles.

Delivery following previous caesarean section

F. P. Meehan N. M. Rafla I. I.Bolaji

Cragin's 'once a caesarean, always a caesarean'[1] must be abandoned and replaced by 'once a caesarean, always a hospital delivery'. Patients with previous caesarean section now represent a relatively large proportion of the obstetric population. In the USA, more than 6% of all obstetric patients had at least one caesarean section, and no other single indication exceeded that of previous caesarean section as an indication for repeat surgery.[2] In Galway, Ireland, patients with previous caesarean section formed 3.42% of the obstetric population (Table 12.1). Watchful waiting has always been an essential virtue in obstetric management and should not be replaced by hopeful expectancy. This aspect of the art of obstetrics would appear to require rejuvenation if we are to stem the rising tide of caesarean section.[3]

Table 12.1 Caesarean section in Galway (1973–1989)

Year	Total patients delivered	Caesarean section		Primary LSCS			Repeat LSCS		
		n	%	*n*	Total sections %	Total deliveries %	*n*	Total sections %	Total deliveries %
1973	2292	139	6.06	82	58.99	3.58	57	41.01	2.49
1974	2487	144	5.79	75	52.08	3.02	69	47.92	2.77
1975	2544	156	6.13	94	60.26	3.69	62	39.74	2.44
1976	2586	166	6.42	103	62.05	3.98	63	37.95	2.44
1977	2797	208	7.44	116	55.77	4.15	92	44.23	3.29
1978	2773	206	7.43	124	60.19	4.47	82	39.81	2.96
1979	2946	293	9.95	200	68.26	6.79	93	31.74	3.16
1980	2972	268	9.02	159	59.33	5.35	109	40.67	3.67
1981	2872	297	10.34	193	64.98	6.72	104	35.02	3.62
1982	3122	271	8.68	165	60.89	5.29	106	39.11	3.40
1983	2948	303	10.28	170	56.11	5.77	133	43.89	4.51
1984	2788	296	10.62	181	61.15	6.49	115	38.85	4.12
1985	2600	279	10.73	181	64.87	6.96	98	35.13	3.77
1986	2640	277	10.49	177	63.90	6.70	100	36.10	3.79
1987	2643	269	10.18	172	63.94	6.51	97	36.06	3.67
1988	2399	263	10.96	171	65.02	7.13	92	34.98	3.83
1989	2097	251	11.97	165	65.74	7.87	86	34.26	4.10
Total	45506	4086	8.98	2528	61.87	5.56	1558	38.13	3.42

LSCS = Lower segment caesarean section.

HISTORY OF CAESAREAN SECTION

The term 'caesarean section' is considered to have come from Roman law, entitled *lex regia*. This law is alleged to have ordered that a dead or dying pregnant woman should have an abdominal delivery to preserve her child for the state. *Lex regia* eventually became known as *lex caesarica*. Hippocrates, Galen or Soranus made no reference to the procedure, but deep in the

folklore of lay and scholarly writings of Egyptian, Greek, and Roman, it is obvious that the technique was known and practised in their time.[4]

The first recorded caesarean section on a living woman occurred in 1500, and was performed by a Swiss man, Jacob Nufer, on his wife.[5] In the UK, the first recorded caesarean section on a living woman was performed in Edinburgh by Robert Smith in 1737.[6] Munro Kerr established the low transverse incision in England and it was not until the late 1940s at the 12th British Congress of Obstetrics and Gynaecology that the lower segment operation at last received universal acceptance.[7]

Initially the introduction of caesarean section was an attempt to improve maternal mortality. In 1962 the maternal mortality from caesarean section in the UK (3.5 per 1000 births) was 10 times that of the overall maternal mortality.[8] This figure had fallen to 0.52 per 1000 for the period 1979–1981[9] and 0.37 per 1000 for the period 1982–1984.[10]

CAESAREAN SECTION RATE

USA

When caesarean section rate (CSR) is debated, we are compelled to ask not only 'How high is too high?', but also 'How low is too low?'[11] It was on the North American continent that the most dramatic increase in caesarean section incidence was noted. In over 30% of caesarean sections performed in the USA in 1982, the sole indication was previous caesarean birth.[12] Neuhoff et al[13] reported the CSR in 1985 at 22.7% and suggested that at the end of the decade one in four infants in the USA will have been born by caesarean section. As of 1986, 23 hospitals in Southern California (Los Angeles area) had CSR of 33% or greater; five of these had rates of 37–39%.[14]

The rising trend is extensive, affecting hospitals and patients in all parts of the country and the CSR has increased about threefold from 5.5% in 1970 to 15.2% in 1978. The state with the highest rise was California. During the years 1960 to 1975, the rate had risen from 4.8% to 12.75%; most of this rise occurred from 1969 onwards. The hospital with the highest CSR in 1960 was 6.5% and with the highest rate in 1975 was 28%.[15] Those figures found in California in 1975 are now widespread across the USA, with rates ranging between 25 and 30%, according to Flamm et al.[16] In Canada the CSR more than doubled from 6 to 13.9% during the 1970s, according to Wadhera & Nair.[17]

Europe

The rising CSR is a worldwide phenomenon, more apparent in the developed than the developing countries. In Sweden the incidence of caesarean section has increased more than 10-fold over the past three decades: 0.87% (1946–1950) to 11.9% in 1976.[18] In Norway, it increased from 2% in 1967 to 8% in 1979.[19] In England and Wales the incidence was 3.1% in 1963 and increased to 7.5% by 1978.[20] In the period 1982–1984, the incidence increased to 10.1%.[10]

Developing countries

In the underdeveloped countries the CSR is low; in Guyana, for example, it is about 3% and is comparable to that found in other hospitals in the West Indies.[21] However, maternal mortality from caesarean section is much higher in the developing countries. Fortney et al[22] reported that 5% of all maternal mortality in Menoufia, Egypt was from caesarean sections. Ojo et al,[23] in a retrospective analysis of 27 maternal deaths after caesarean section over 5 years in Nigeria, found that the CSR was 4.1%. Maternal mortality rate (MMR) following caesarean section was 18.1 per 1000 (81.5% because of sepsis), while that following vaginal delivery was 1.89 per 1000.

Ireland

In the Coombe Maternity Hospital, Dublin, the CSR was reported at 7% by Feeney.[24] In our unit, the mean CSR for the period 1973–1989 was 8.98% (Table 12.1). There is one institution which shines like a beacon in having controlled its CSR between 4 and 6%, while maintaining a perinatal result equal to and better than most reported series, and that is the National Maternity Hospital, Dublin.[25] However, Leveno and his colleagues[11] challenged this, stating that this low CSR could not be achieved in Parkland Memorial Hospital, USA where population and infant outcome differences precluded such a low rate of caesarean section.

Galway

The figures for caesarean section in University College Hospital, Galway are shown (Table 12.1, Figs 12.1 and 12.2). It is evident that our CSR is also rising, having almost doubled from 1973 to 1988.[3,26] There were 4086 caesarean sections performed between the years 1973 and 1989, giving a

mean CSR of 8.98 over the 17-year period. Of these, 61.87% were primary and 38.13% were repeat operations (Table12.1).

In the 17 years studied (1973–1989) the section rate increased from 6.06% in 1973 to 11.97% in 1989 (Table 12.1, Fig. 12.3). However, with the mean repeat caesarean section incidence at 38.13% for the 17-year period (Table 12.1), it would appear that we are controlling the overall CSR in this unit with our policy of attempted vaginal delivery following a caesarean section. The increase in CSR is caused mainly by an increase in the primary sections.[27] The uncorrected perinatal mortality rate (PMR) in Galway has improved over the last 17 years from 3.32% in 1973 to 1% in 1989 (Table 12.2). These are the lowest reported figures in this country and yet the yearly CSR has never gone beyond 12%. It is obvious that the rise in the CSR in Galway was not associated with a similar corresponding drop in the PMR, as reported by Meehan et al[28] (Fig. 12.2).

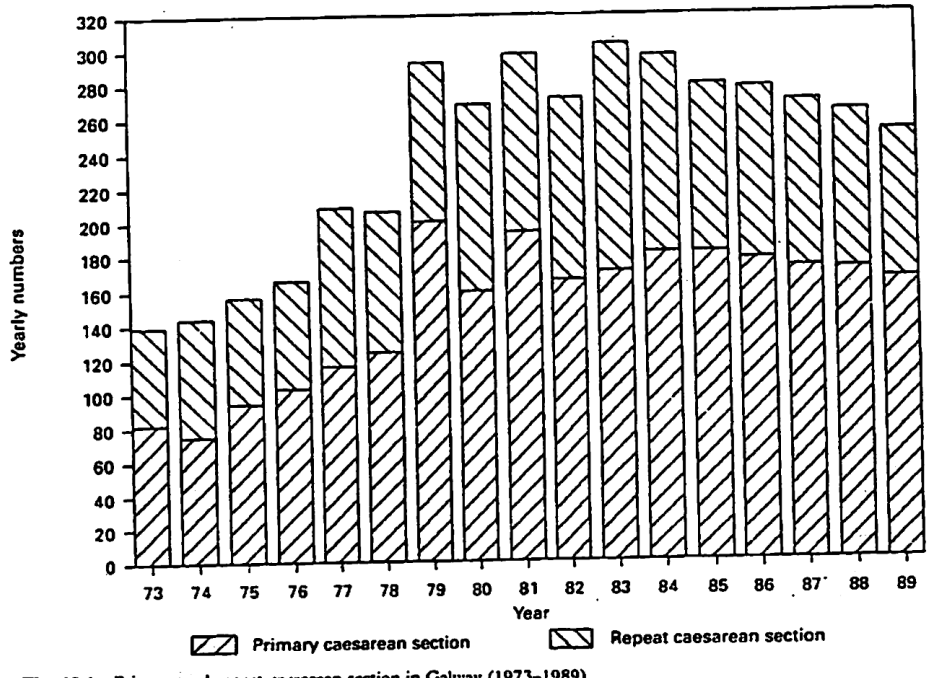

Fig. 12.1 Primary and repeat caesarean section in Galway (1973–1989).

CAUSES AND EFFECTS OF INCREASED CAESAREAN SECTIONS

In seeking an explanation for the tripling of the incidence of caesarean

section in the USA during the past decade, one must consider the medicolegal influence as a possible cause. Although Caesarean Birth Task Force[29a] did not accept fear of litigation and the possible consequent practice of 'defensive medicine' as a major cause of the increased caesarean birth rate, an obstetrician has only to look at his or her annual malpractice insurance premium to recognize the existence of this social force and to feel the personal vulnerability. Essentially, every American obstetrician has come to recognize that physicians are almost never sued for

Table 12.2 Perinatal mortality in Galway (1973–1989)

Year	Total patients delivered	Perinatal deaths		Stillbirths			Neonatal deaths		
		n	%	n	Total perinatal deaths %	Total deliveries %	n	Total perinatal deaths %	Total deliveries %
1973	2292	76	3.32	40	52.63	1.75	36	47.37	1.57
1974	2487	87	3.50	39	44.83	1.57	48	55.17	1.93
1975	2544	71	2.79	34	47.89	1.34	37	52.11	1.45
1976	2586	56	2.17	29	51.79	1.12	27	48.21	1.04
1977	2797	57	2.04	36	63.16	1.29	21	36.84	0.75
1978	2773	63	2.27	28	44.44	1.01	35	55.56	1.26
1979	2946	67	2.27	37	55.22	1.26	30	44.78	1.02
1980	2972	48	1.62	28	58.33	0.94	20	41.67	0.67
1981	2872	48	1.67	25	52.08	0.87	23	47.92	0.80
1982	3122	40	1.28	29	72.50	0.93	11	27.50	0.35
1983	2948	37	1.26	25	67.57	0.85	12	32.43	0.41
1984	2788	39	1.40	22	56.41	0.79	17	43.59	0.61
1985	2600	23	0.88	11	47.83	0.42	12	52.17	0.46
1986	2640	19	0.72	7	36.84	0.27	12	63.16	0.45
1987	2643	28	1.06	16	57.14	0.61	12	42.86	0.45
1988	2390	23	0.96	10	43.48	0.42	13	56.52	0.54
1989	2097	21	1.00	14	66.67	0.67	7	33.33	0.33
Total	45506	803	1.76	430	53.55	0.94	373	46.45	0.82

performing unnecessary caesarean sections. This fact compounds the problem, and more sections will be performed as we establish new indications.[3]

Complacency regarding the safety of caesarean section and fear of litigation have been instrumental in effecting change in our practice habits and have influenced our obstetric decisions. Where doubt arose, caesarean section became the answer. Berkowitz et al[29b] found that older, more experienced physicians performed significantly fewer caesarean sections for dystocia and a higher percentage of forceps deliveries and breech extractions. The CSR has increased to astronomical proportions in a relatively short time without due regard to the recent advances, e.g. ultrasonics, intrapartum monitoring and neonatology, and the contribution they could have made in their own right, if correctly applied, without resorting to caesarean section.[3,27,30]

Maternal mortality following caesarean section

The study of maternal mortality is important in evaluating the quality of

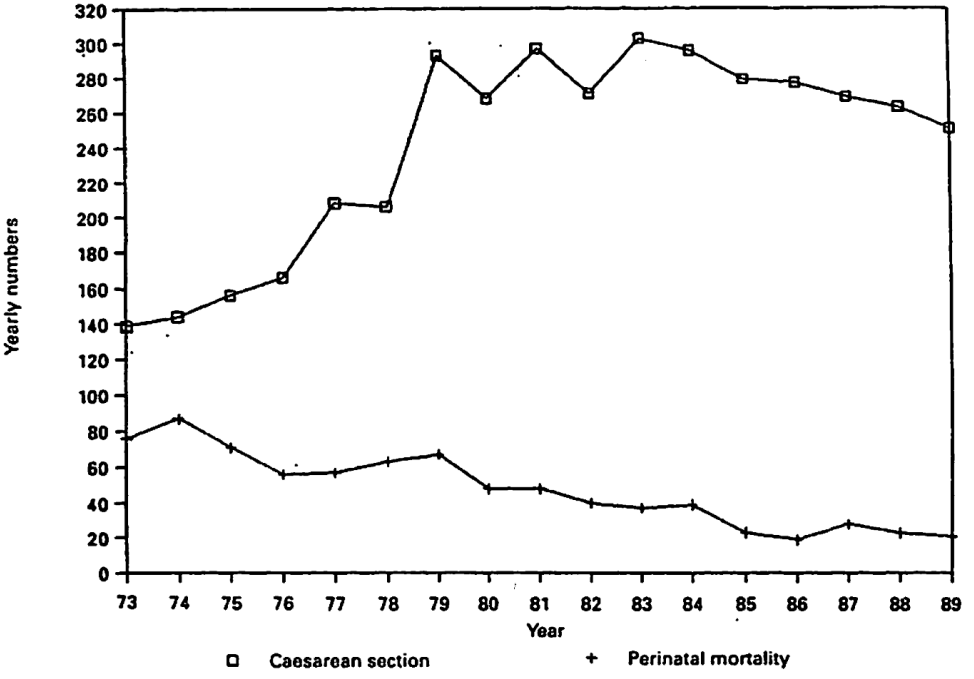

Fig. 12.2 Perinatal mortality and caesarean section in Galway (1973–1989).

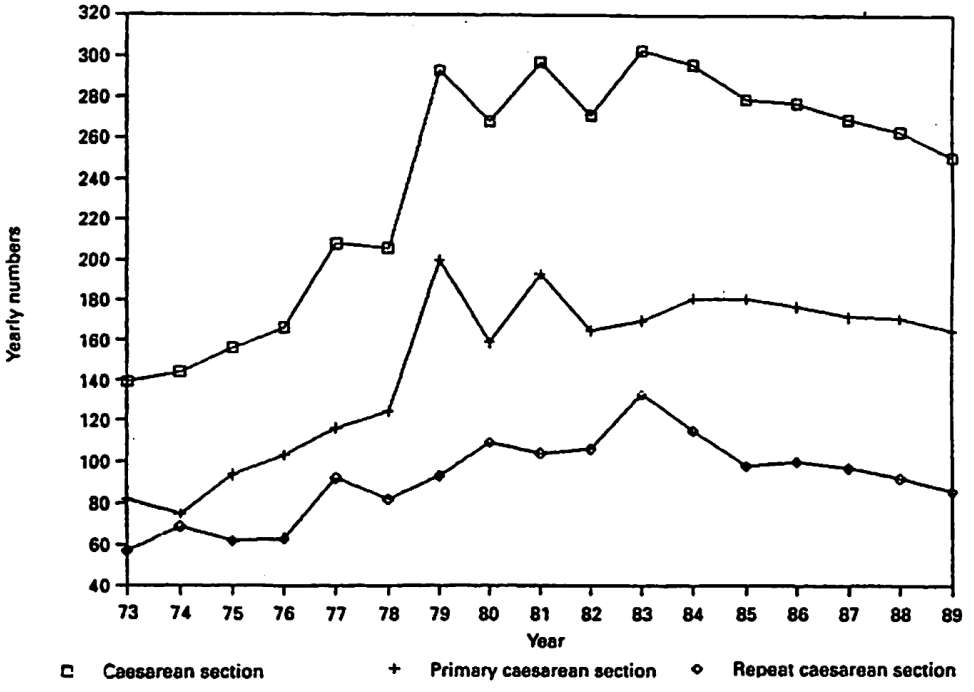

Fig. 12.3 Caesarean section in Galway (1973–1989).

obstetric care, the training of obstetricians who care for pregnant women, and the improvement in the safety of childbirth. In England and Wales the confidential inquiry into maternal death is an invaluable exercise determining the standards of different obstetric practices.[9,10,20] It is not dependent on death certificates as the principal source of information, as happens in the USA. Rubin et al[31] have shown that the record linkage procedure which they have adopted in Georgia, USA, enabled them to identify 45% more maternal deaths after a caesarean section delivery than the death certificate reporting system. There is therefore a great need for a standardized professional medical audit on maternal mortality in the USA, akin to the confidential inquiries into maternal deaths in England and Wales.

In England and Wales, there were 69 deaths amongst women delivered by caesarean sections during 1982–1984, 44 of which were direct deaths. The proportion of all direct deaths having a caesarean section has risen from 24% in 1970–1972 to 32% during the period 1982–1984. The commonest immediate cause of death in association with caesarean section was pulmonary embolism, hypertensive disease, followed by anaesthesia. Seven per cent of maternal deaths associated with caesarean section had a prior section.[10]

There were 87 deaths in women delivered by caesarean section during 1979–1981 in England and Wales; 59 were direct maternal deaths, 25 were indirect and 3 were fortuitous.[9] The fatality rate for caesarean section in National Health Service hospitals was 0.37 per 1000 in 1982–1984 compared with 0.5 per 1000 in 1979–1981 and 1 per 1000 in 1970–1972. The number of caesarean sections performed annually has risen from 42 000 in 1978 to 57 000 in 1981, increasing the proportion from 7.5% of the total number of deliveries to 10% in 1981. Obstetricians should review their practice regularly and attempt to balance the relative risks to mother and child.[9]

Obstetric outcome of patients with more than one previous section

Novas et al[2] reviewed the records of 69 patients with more than one previous section: 36 underwent trial of labour, and 80% achieved a vaginal delivery. Twenty of these patients had three or more previous caesarean sections and concluded that trial of labour in patients with more than one previous caesarean section did not result in deleterious outcome. Lawson [32] also reported on vaginal delivery following three previous sections with no maternal or fetal morbidity.

Unknown uterine scar and trial of labour

Pruett et al[33] reviewed 393 patients undergoing trial of labour after one or more previous section. In this study, 300 patients had an unknown type of uterine scar: the rate of vaginal delivery and maternal and fetal morbidity was no different in those patients with an unknown prior uterine incision compared with those having a known prior low cervical transverse incision. Similar findings have been noted in our unit.

INDICATIONS FOR PRIMARY CAESAREAN SECTION AND TRIAL OF LABOUR IN THE SUBSEQUENT BIRTH

'The rising Caesarean section birth rate has become of increasing concern to the obstetric profession and the public'.[29b] The major obstetric indications responsible for the rising rate are dystocia, fetal distress, breech presentation, very low birth weight, multiple pregnancies and previous caesarean birth.

Cephalopelvic disproportion (CPD)

Failure to progress in labour or dystocia is a leading indication for primary caesarean section and has major impact on escalating CSR in the USA.[13] Recent literature indicates that the diagnosis of CPD has no prognostic value from one pregnancy to the next and generally should not exclude a patient from a trial of labour.[16] Meier & Porreco[34] studied 230 trials of labour and found that, of 107 patients whose primary section was for CPD, 67.3% were delivered vaginally — 31% of which were larger than the one they had by caesarean section. These authors also found that, of 83 women whose first pregnancy ended by caesarean section for CPD, 78% were delivered vaginally following trial of labour.

Breech presentation

Breech babies are often subjected to birth injuries and intrauterine hypoxia. Kubli et al[35] found that fetal acidosis were much more common in breech than cephalic presentations and concluded that all breeches should be delivered by caesarean section. However, Schutte et al[36] and O'Driscoll & Foley[25] showed that breeches could be allowed to deliver vaginally. In Galway we allow breeches to deliver vaginally on the basis of the following:

1. Anticipated fetal weight is 3.500 kg or less by ultrasound examination.
2. Normal pelvic shape and dimensions by lateral X-ray pelvimetry.

3. Frank breech presentation with flexed head.
4. The presence of an experienced obstetrician to conduct the delivery.

In patients who had a primary caesarean section for breech presentation, 93.4% were delivered vaginally following trial of labour. However in patients having breech presentation with previous caesarean section scar, the consensus is that they should have a repeat caesarean section. Paul et al[37] examined 72 patients with breech presentation and found that vaginal delivery was achieved in 46% of 18% allowed a trial of labour.

Multiple pregnancy

In a retrospective study by Gilbert et al,[38] it was shown that a transverse low uterine segment scar does not present a risk because of uterine distension secondary to a twin pregnancy. Strong et al[39] studied the pregnancy outcome of 56 women with twin gestation and a previous section birth. In these patients, 31 (55%) underwent an elective repeat caesarean delivery and 25 (45%) attempted a vaginal delivery. In the latter 18 (72%) were vaginally delivered of both infants. The dehiscence rate among women with twin pregnancies who attempted a trial of labour was 4% compared with 2% in women with a singleton pregnancy.

Fetal distress in labour

Although this is an acceptable indication for caesarean section, identification of the fetus at risk from hypoxia is not always easy. The diagnosis of hypoxia based on cardiotocography alone has led to an increase in CSR. In France, Peter et al [40] found that fetal distress was the cause of one-quarter of caesarean sections in their study. Ayromlooi & Garfinkel[41] found that fetal blood sampling has helped reduce CSR. MacDonald et al,[42] however, have shown that electronic fetal monitoring did not influence the number of caesarean sections in low-risk pregnancies at the National Maternity Hospital, Dublin.

Very low birth weight babies

It is now the practice of many hospitals to perform caesarean section for very low birth weight infants to reduce the incidence of long-term handicap. Haesslein & Goolin[43] found that the incidence of interventricular haemorrhage in cephalic presentation is markedly reduced after

caesarean section. However, Lamont et al[44] recommended caesarean section only in breech presentation.

MANAGEMENT OF TRIAL OF SCAR (TOS) IN GALWAY

The perinatal mortality rate for patients with previous section is higher than the rest of the population, and the need for antenatal surveillance is emphasized. We believe that trial of labour is as safe for the fetus as elective repeat section. In our unit the following rules are applied in the management of TOS:[45]

1. We use continuous cardiotocography throughout labour without intrauterine pressure monitoring. These devices are commonly recommended for the management of trial of labour patients, but they are invasive and therefore not without inherent risks. Our data demonstrate that they are not absolutely necessary.
2. Oxytocin is administered when required, by automatic pump to a maximum of 12 mU/min, but may be increased to 40 mU/min upon a consultant decision. Induction of labour is associated with high success rates and does not increase the true uterine rupture, provided proper patient selection is made and induction performed and supervised correctly.[27] We believe the use of artificial rupture of the membranes and intravenous oxytocin for induction is safe, when properly managed. Prostaglandin has proved safe in our unit with proper monitoring. MacKenzie et al[46] used prostaglandins on 143 patients with previous scars and no true rupture or bloodless dehiscence was observed.
3. Automatic monitoring of maternal blood pressure and pulse recordings should be made at 15-min intervals.
4. Epidural analgesia for TOS: we demonstrated that epidural analgesia for patients undergoing TOS is safe for mother and fetus in properly conducted trial of labour.[45] Patients are often having their first vaginal delivery and require more pain relief. An increased instrumental delivery rate can be anticipated in patients with trial of labour and a further 15–20% may require termination of trial by caesarean section. Both procedures are often easier and safer under regional analgesia.
5. Anaesthetic and paediatric staff are informed of the trial.
6. Compatible cross-matched blood should always be available.
7. A midwife is in attendance at all times.
8. The '6-hour rule' is observed — the trial of labour is terminated after

6 hours of active labour if delivery is not imminent.
9. Caesarean section theatre is available.

Trial of labour following previous section is associated with little risk of true rupture, and with no added risk to the fetus. Our policy and management have helped maintain over the past 5 years an overall CSR of 10–11%.[26] Over the same period, the vaginal delivery rate was 82%; no perinatal death was associated with delivery and there was total elimination of true rupture.[45]

SOLUTION

The problem of the high CSR will have to be attacked on two fronts: firstly, by reducing the primary section rate, and secondly, by attacking the repeat section incidence. The more primary caesarean sections performed, the more repeat caesarean sections that are likely to follow, as shown by Sehgal.[48] He discussed the changing rates and indications for caesarean section, showing levels of 4.4% in 1972, which had risen to 8.8% in 1975 and 17.2% in 1979. Repeat caesarean section was the indication for 30.3% of all sections performed in his series. In over 30% of caesarean sections undertaken in the previous 3 years, the sole indication was previous caesarean birth in the series reported by Taylor et al.[49]

That 37% of the indications for caesarean section were repeat caesarean operations in Graham's unit[50] is an indication of the problem to overcome. He estimated that if the trial of labour had been contemplated for all suitable patients in his series, even with a 50% success rate, it would have reduced the caesarean section incidence from 19 to 15%. Many other reports in recent years — the most notable being that of Lavin et al[51] and Flamm[52] — have confirmed the safety of vaginal delivery following caesarean section and have dispelled the myth of scar dehiscence following this procedure. Yetman & Nolan,[53] however, found that infants with birth weights >3720 g were less likely to deliver vaginally. They urged that fetal weight estimation at term should be a part of the decision-making process before vaginal birth after caesarean section is attempted.

CONCLUSIONS

It is sad but true that defensive obstetrics is practised more often today. The National Institutes of Health (NIH) consensus committee on caesarean section[54] recommends that hospitals with appropriate facilities, service and

staff for prompt emergency caesarean birth in a proper selection of cases should permit a safe trial of labour and vaginal delivery for women who have had a previous lower segment caesarean section. It also supports the belief held by Lavin[55] that the physician who opts to allow appropriately selected patients to undergo a trial of labour, while following the well-established guidelines for management of such patients, would be subjected to a very low risk of a successful suit for malpractice. Because the medical profession is vulnerable, it must be prepared to fight back against the litigious urge and the small groups of unprincipled lawyers who bring discredit to the legal profession, unnecessary anxiety to the doctor, and inflict hardship, not to mention possible dangers, on the unfortunate and unsuspecting patient. What better way to do this than follow through with what we believe to be the correct management in a given circumstance and so obviate this growing cancer within our specialty known as defensive obstetrics.[3]

In managing patients with prior caesarean section, it must be realized that intensive antenatal surveillance is required. In our unit we demonstrated that perinatal mortality associated with delivery following previous caesarean section is increased irrespective of the method of delivery.[27] The risk of true uterine rupture is extremely low with modern obstetric practice. In Galway the incidence of true rupture in the last 5 years was 0.2%.[27] and hence it must not be retained as the excuse for choosing elective repeat caesarean delivery.

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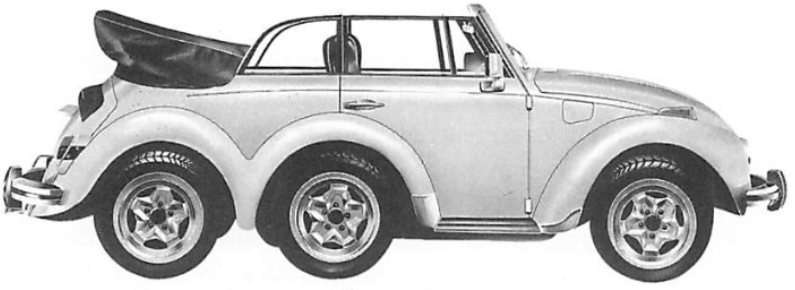
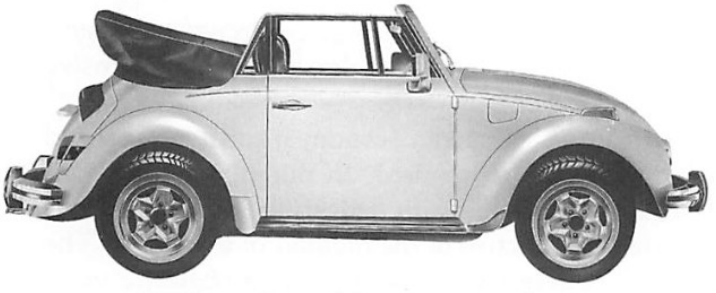


It makes as much sense as excessive acid suppression



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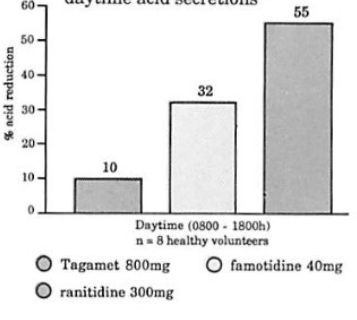

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References: 1. Capurso L. et al., British Medical Journal, 1984; 289: 1418-1420. Lacerte M.et al;Current Therapeutic Research, 1984; 37:677-684. Minoli G. et al; Lancet 1984; i:1354. **2.** de Gara CJ et al; A symposium Proceedings XII Int. Cong. Gastroenterol. Lisben 1984; 5-13. **3.** Dammann HG, et al. Scand J Gastroenterol 1986; 21 (Suppl. 121): 25-29.

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- ☐ Adheres right up to wound edge
- ☐ Transparent non-glare surface
- ☐ Thin yet extremely strong
- ☐ Conformable and elastic
- ☐ Creates a sterile working field around the operation site
- ☐ Adhesive handles for extra security and easy handling

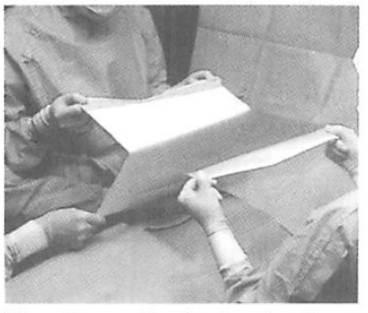
OPSITE Incise Drape is a transparent, adhesive polyurethane film which breathes with the skin, so preventing moisture build-up under the drape. As a result, OPSITE adheres throughout long surgical operations to the surrounding skin and most importantly to the wound edge.
OPSITE adheres firmly to the skin around the incision, so preventing the lateral migration of bacteria which can leac to infection. It also provides a sterile field around the incision site.
Additionally, OPSITE Incise Drapes help to keep towels in place around the operation site, hence clips may no longer be required.

Advantages

Adheres right up to wound edge–The drape will provide protection from laterally migrating bacteria because it stays in place even throughout major operations, involving prolonged retraction of wound edges.
Transparent non-glare surface–The incision site is clearly visible without glare.
Thin yet extremely strong–OPSITE Incise Drape is tear resistant, yet can be cleanly cut with a scalpel. Its strength protects thin and friable skin from tearing.
Conformable and elastic–OPSITE Incise Drape is very conformable on awkward operation sites, yet its elastic qualities make it suitable for use where heavy manipulative surgery is involved, for example, in total hip replacement.
Maintains a sterile operation site–OPSITE Incise Drape is impermeable to bacteria so providing a sterile area; on to which internal organs may be placed without fear of contamination.
Easy to handle–Simple to apply even over awkward body areas.

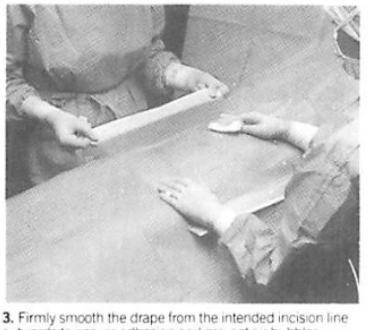
Indications

Suitable for all types of surgery:
1. Orthopaedic–OPSITE Incise Drape conforms well and remains in place over awkward body contours.
2. Neuro-surgery–OPSITE Incise Drape has a high moisture vapour permeability which maintains adhesion right up to the incision, throughout lengthy procedures.
3. Major abdominal–Such as gastrectomy, colectomy and cholecystectomy.
4. Plastic–The drape's skin-like properties offer distinct benefits for this type of surgery.
5. Open Heart and Thoracic–OPSITE Incise Drape has strength and elasticity which can withstand extensive retraction.
6. Ophthalmic–OPSITE Incise Drape conforms to the orbital area to create a clear operation site.
7. Paediatric–The drape can also cover the perineum, reducing the risk of contamination from urine and faeces.



1. Remove the wrapped drape from the pouch and discard the inner wrapping paper. With handles uppermost, starting at a corner peel the protective paper away from the drape.

2. Without stretching the OPSITE Incise Drape, anchor the drape to the bottom towel and onto the skin.



3. Firmly smooth the drape from the intended incision line outwards to ensure adhesion and prevent air bubbles.

4. Remove the handle protector paper and stick the handles to the theatre drapes, for extra security.

Note on Application

The skin should be thoroughly prepared in the normal way before applying OPSITE Incise Drape. If solutions containing soap, detergent or lanolin have been used, the whole area should be scrubbed with 70% alcohol, which will help to defat and dry the skin.

Presentation

Each OPSITE Incise Drape is sterile and individually wrapped in a peel apart pouch. Sterilisation is by ethylene oxide.

Availability

Overall Size	Adhesive Area	Carton
28 cm x 15 cm	20 cm x 15 cm	10 drapes
28 cm x 30 cm	20 cm x 30 cm	10 drapes
28 cm x 45 cm	20 cm x 45 cm	10 drapes
55 cm x 45 cm	47.5 cm x 45 cm	10 drapes

* Trade Mark of T. J. Smith and Nephew Limited

For further details please contact:
Smith and Nephew Pakistan (Pvt) Ltd.

A/69, S.I.T.E., Manghopir Road
P.O. Box 3659, Karachi
Tel: 297051-52, 295201
Telex: 25927 SNPPL PK
Telegram: GYPSONA Karachi

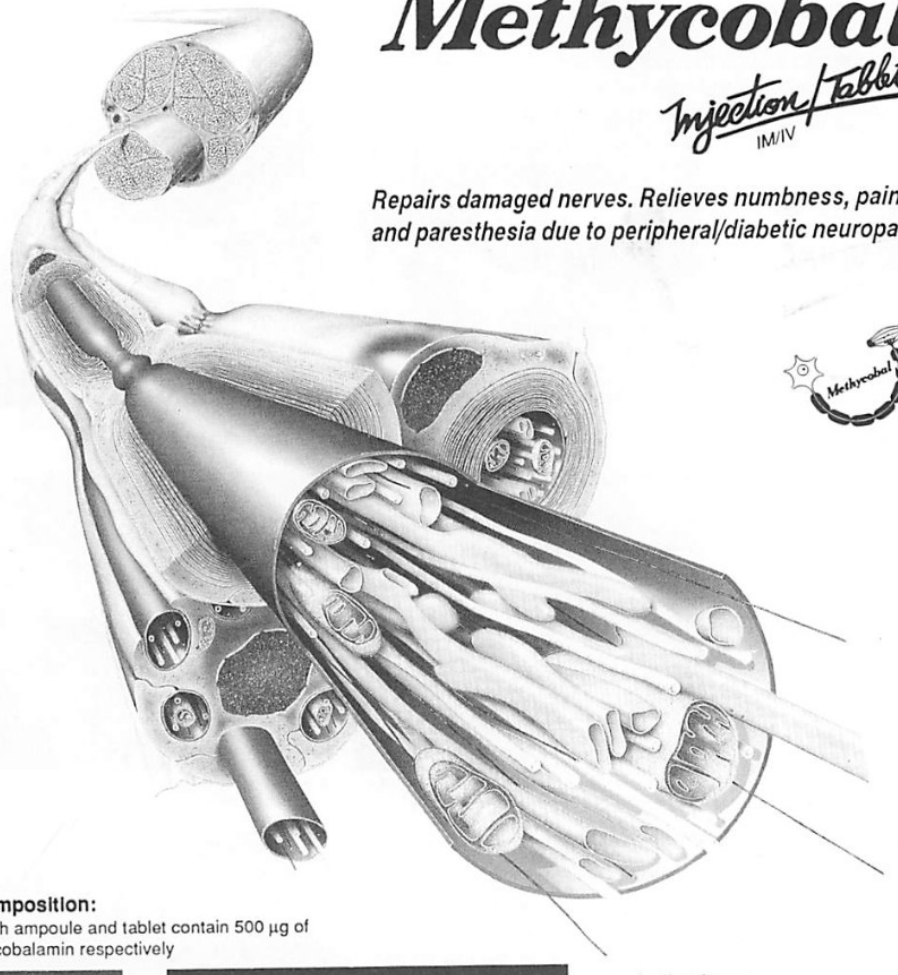
Smith+Nephew

A Remedy for Peripheral Neuropathies

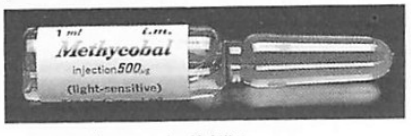
Methycobal®

Injection/Tablet
IM/IV

Repairs damaged nerves. Relieves numbness, pain and paresthesia due to peripheral/diabetic neuropathies.



Composition:
Each ampoule and tablet contain 500 μg of mecobalamin respectively



1 tablet orally
3 times a day

1 ampule IM/IV
3 times a week

Indications:
Peripheral neuropathies (for example, diabetic and alcoholic neuropathy, drug induced neuropathy, lumbago, entrapment neuropathy, intercostal neuralgia, and diabetic retinopathy).

Further information is available on request.

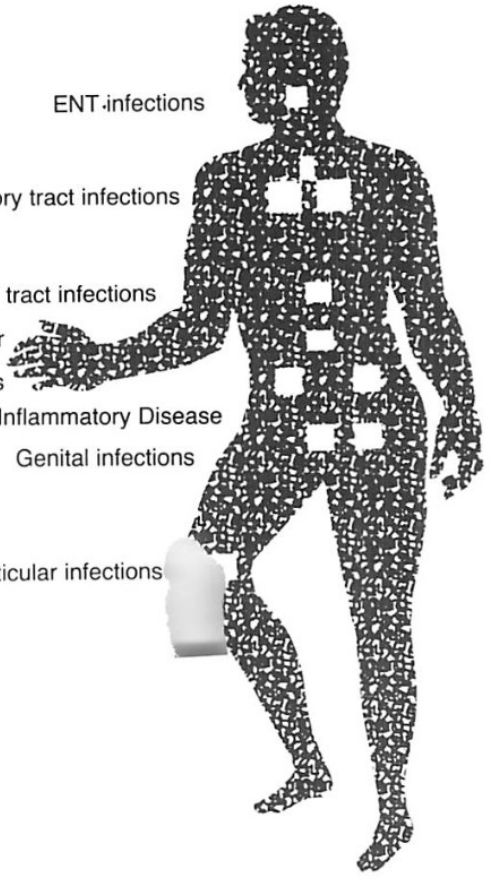
Manufactured by:
Eisai Co., Ltd.
TOKYO-JAPAN

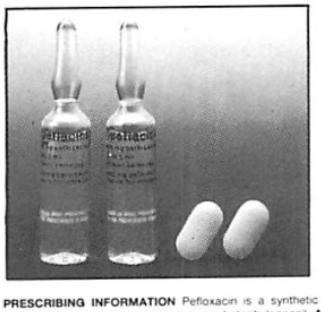
Marketed by
HILTON PHARMA (PVT) LTD.
Muhammadi House, I.I. Chundrigar Road, Karachi - Pakistan

PEFLACINE

The Broad Spectrum Quinolone

Pefloxacin





PRESCRIBING INFORMATION Pefloxacin is a synthetic antibiotic which belongs to the quinolone family. **INDICATIONS** Severe infections, in adults, caused by sensitive micro-organisms (gram negative organisms and staphylococci). **ADMINISTRATION** *By the oral route* PEFLACINE tablets should be taken twice daily (one tablet in the morning and one in the evening) during meals. *By the intravenous route* PEFLACINE injection should be administered by slow intravenous injection (one hour) at the dosage of one ampoule of 400 mg, diluted in 250 ml of isotonic glucose solution, twice daily (one injection in the morning and one in the evening). A chloride solution should not be used to prepare the dilution as pefloxacin precipitates in the presence of chloride ions. Ampoules should be protected from light. **DOSAGE** 1. On average, 400 mg (either one tablet or one ampoule) b.i.d. An initial loading dose of 800 mg may be given in order to produce effective blood concentrations more rapidly. 2. *Adults with hepatic insufficiency*: In patients with severe hepatic insufficiency or reduced blood supply to the liver, the daily dosage should be adjusted by increasing the intervals between the doses. It is recommended that "PEFLACINE" injection should be given by intravenous infusion at the rate of 8 mg/kg per hour. ● twice daily in patients who are not ascitic or jaundiced, ● once daily in patients with jaundice ● every 36 hours in patients with ascites. 3. Adults with severe renal failure. In patients with creatinine clearance < 10 ml/min, the dosage interval may be increased to once a day. In patients with less severe renal insufficiency the normal dosage can be prescribed. **SIDE EFFECTS** Digestive disorders: gastric pain, nausea, vomiting. Allergic skin reactions and photosensitivity. Muscular and/or articular pain. Thrombocytopenia at high dosages (1600 mg daily). Neurological disorders: headache, disorders of vigilance. **WARNINGS** As Streptococcus pneumoniae and other streptococci are not consistently sensitive to pefloxacin, "PEFLACINE" should not be prescribed as the initial treatment in respiratory infections when a bacteriological examination has not been carried out. Exposure to sunlight and ultraviolet radiation should be avoided during treatment and for a few days afterwards because of the risk of photosensitisation. **CONTRA-INDICATIONS** ● Allergy to drugs of the quinolone family. ● Children under 15 years of age. ● Pregnancy ● Nursing mothers ● Glucose-6-phosphate dehydrogenase deficiency. **PRECAUTIONS IN USE** Severe hepatic insufficiency the dosage should be adjusted. **INTERFERENCE WITH LABORATORY INVESTIGATIONS** PEFLACINE does not effect the determination of glucose in the urine. **PRESENTATION:** Ampoules: Each 5ml ampoule containing Pefloxacin 400mg in boxes of 5's Tablets: each containing Pefloxacin 400mg in blister of 5's MRP. Ampoule 400mg × 5ml: Rs. 154.08 Tablet 400mg × 2 × 5's. Rs. 253.00

Detailed information is available on request

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Rhone Poulenc Rorer Pakistan (Pvt) Ltd.

Formerly Rhone Poulenc Pakistan (Pvt) Ltd.

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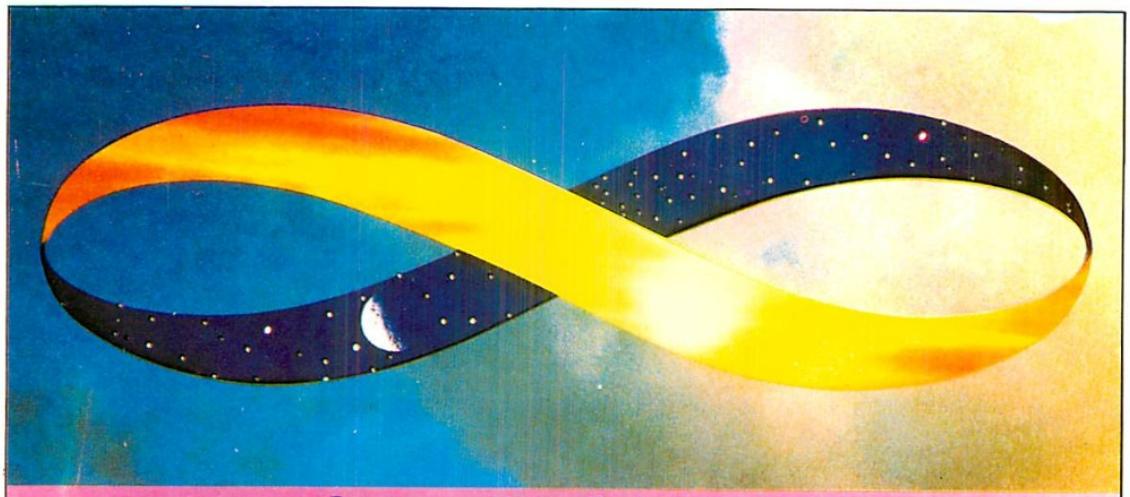
FAHEEM ART PROCESS

UPDATE LECTURES DURING SYMPOSIUM

21st, 22nd & 23rd May, 1993

01-	Razia Latif Ansari Memorial Lecture Audit in Obstetrics Dr. Connor J. Carr Ireland	Arag Auditorium 7.30 PM 21-05-1993
02-	Biochemistry in Medical School Prof. Shakir A. Jaffery DMC,Karachi.	Arag Auditorium 8.30 AM 22-05-1993
03-	Hypoxia in Cardiopulmonary Resuscitation Prof. J. Coates England	Arag Auditorium 11.30 AM 22-05-1993
04-	Challenges in Medical Ethics in 90's Dr. Jeremy Wight England	Arag Auditorium 2.30 PM 22-05-1993
05-	Calcium Channel Blockers A tribute to Albrecht Fleckenstein A renowned Physiologist Dr. H.R. Ahmed AKUH, Karachi.	Khwaja Moin Auditorium 8.30 AM 22-05-1993
06-	Oesophageal Dysmotility Dr. S.Y. Iftikhar England	Khwaja Moin Auditorium 11.30 AM 22-05-1993
07-	Anator ects in Lapros gery Prof. B l DMC,	Anatomy Lecture Hall 8.30 AM 22-05-1993
08-	Inner ent Advances In Mic ny Dr. Kh han AKUH,	Anatomy Lecture Hall 11.30 AM 22-05-1993
09-	Hyperfiltration damage following nephrectomy Dr. Zac Varghese England	Arag Auditorium 8.30 AM 23-05-1993
10-	Immunological problems following Transplantation Dr. Oswald Fernando England	Arag Auditorium 11.30 AM 23-05-1993
11-	AIDS - A Challange in Pakistan Dr. R. Khanani SMC, Karachi.	Khwaja Moin Auditorium 8.30 AM 23-05-1993
12-	Pathology of Ulcerative Colitis Dr. Sirajuddola Syed SMC, Karachi.	Khwaja Moin Auditorium 11.30 AM 23-05-1993
13-	Physiology of Hyperglycaemia Dr. P. Baulow England	Anatomy Lecture Hall 8.30 AM 23-05-1993



Once-a-Day Calcium Antagonist

Norvasc®

(amlodipine besylate)

PROVIDES 24 HOURS OF CONTROL AND PROTECTION IN HYPERTENSION

Initial Therapy With Excellent Toleration

1. Predictable blood pressure control-day after day, week after week, month after month.
2. Smooth onset of action contributing to an excellent safety profile with a low incidence of side effects.
3. Convenient once-daily dosing for enhanced patient compliance.

Prescribing information summary

Actions: Amlodipine is a calcium ion influx inhibitor (slow channel blocker or calcium ion antagonist) and inhibits the transmembrane influx of calcium ions into cardiac and smooth muscle. **Indications:** Amlodipine is indicated for the first line treatment of hypertension and can be used as the sole agent to control blood pressure in the majority of patients. Amlodipine is indicated for the first line treatment of myocardial ischemia, whether due to fixed obstruction (stable angina) and/or vasospasm/vasoconstriction (Prinzmetal's or variant angina) of coronary vasculature. **Contraindications:** Amlodipine is contraindicated in patients with a known sensitivity to dihydropyridines. **Warnings Use During Pregnancy and Lactation:** Safety of amlodipine in human pregnancy or lactation has not been established. Accordingly, use in pregnancy is only recommended when there is no safer alternative and when the disease itself carries greater risk for the mother and child. **Use in the Elderly:** Although elderly patients may have higher plasma concentrations of amlodipine than those in the younger subjects, the terminal elimination half lives were similar. Amlodipine, used at similar doses in elderly or younger patients, is equally well tolerated. Therefore normal dosage regimens are recommended. **Use in Renal Failure:** Amlodipine is extensively metabolised to inactive metabolites with 10% excreted as unchanged drug in the urine. Changes in amlodipine plasma concentrations are not correlated with degree of renal impairment. Amlodipine may be used in such patients at normal doses. Amlodipine is not dialysable. **Use in Patients with Impaired Hepatic Function:** Amlodipine half-life is prolonged in patients with impaired liver function and dosage recommendations have not been established. The drug should therefore be administered with caution in these patients. **Adverse Reactions:** Amlodipine is well tolerated. The most commonly observed side effects were headache, edema, fatigue, nausea, flushing and dizziness. No pattern of clinically significant laboratory test abnormalities related to amlodipine has been observed. **Dosage and Administration:** For both hypertension and angina, the usual initial dose is 5mg amlodipine once daily which may be increased to a maximum dose of 10mg depending on the individual patient's response. No dose adjustment of amlodipine is required upon concomitant administration of thiazide diuretics, beta blockers, and angiotensin-converting enzyme inhibitors. MRP. 5mg Tablets Rs. 178.00 for 20's,10mg Tablets Rs.350.00 for 20's.

FULL INFORMATION AVAILABLE ON REQUEST

Pfizer Bringing Science To Life

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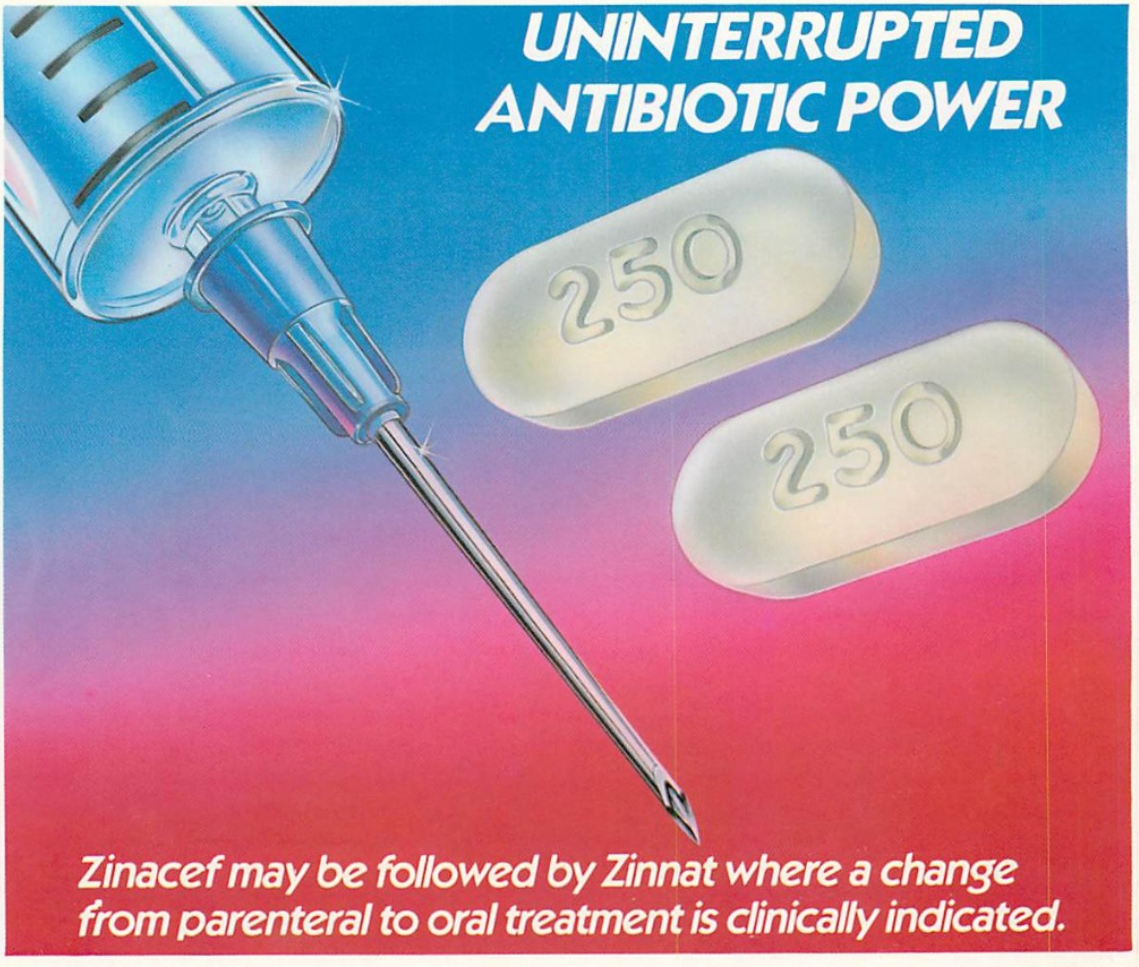

Trade Mark

ZINACEF

cefuroxime

FOR DECISIVE PARENTERAL EFFECT

ABRIDGED PRESCRIBING INFORMATION: PRESENTATION: VIALS CONTAINING 250MG OR 750MG CEFUROXIME AS CEFUROXIME SODIUM. **USES:** ZINACEF IS INDICATED FOR THE TREATMENT OF INFECTIONS BEFORE THE INFECTING ORGANISM HAS BEEN IDENTIFIED AND FOR PROPHYLAXIS AGAINST INFECTION IN SURGERY WHERE THERE IS INCREASED RISK FROM INFECTION. **DOSAGE:** *ADULTS:* GENERALLY 750MG T.I.D.I.M. OR I.V. SEVERE INFECTIONS 1.5G T.I.D.I.V. FREQUENCY OF **ADMINISTRATION** CAN BE INCREASED TO 6-HOURLY IF NECESSARY. *INFANTS AND CHILDREN:* 30 TO 100MG/KG/DAY IN 3 OR 4 DIVIDED DOSES. 60MG/KG/DAY WILL BE APPROPRIATE FOR MOST INFECTIONS. *NEONATES:* 30 TO 100MG/KG/DAY IN 2 OR 3 DIVIDED DOSES. *GONORRHOEA:* SINGLE DOSE OF 1.5G (2 X 750MG AT DIFFERENT SITES). *PROPHYLAXIS:* THE USUAL DOSE OF 1.5G I.V. WITH INDUCTION OF ANAESTHESIA FOR ABDOMINAL, PELVIC AND ORTHOPAEDIC OPERATIONS, MAY BE SUPPLEMENTED WITH TWO 750MG I.M. DOSES 8 AND 16 HOURS LATER. IN CARDIAC, PULMONARY, OESOPHAGEAL AND VASCULAR OPERATIONS, THE USUAL DOSE IS 1.5G I.V. WITH INDUCTION OF ANAESTHESIA CONTINUING WITH 750MG I.M.T.I.D. FOR A FURTHER 24 TO 48 HOURS. IN TOTAL JOINT REPLACEMENT, 1.5G CEFUROXIME POWDER MAY BE MIXED DRY WITH EACH PACK OF METHYLMETHACRYLATE CEMENT POLYMER BEFORE ADDING THE LIQUID MONOMER. **CONTRA-INDICATION:** HYPERSENSITIVITY TO CEPHALOSPORINS. **PRECAUTIONS:** CEPHALOSPORINS MAY, IN GENERAL, BE GIVEN SAFELY TO PATIENTS WHO ARE HYPERSENSITIVE TO PENICILLINS. SPECIAL CARE IS INDICATED IN PATIENTS WHO HAVE EXPERIENCED AN ANAPHYLACTIC REACTION TO PENICILLINS AS WITH ALL DRUGS, ZINACEF SHOULD BE ADMINISTERED WITH CAUTION DURING THE EARLY MONTHS OF PREGNANCY. ZINACEF SHOULD NOT BE MIXED IN THE SYRINGE WITH AMINOGLYCOSIDE ANTIBIOTICS. REDUCE DOSAGE WHEN RENAL FUNCTION IS MARKEDLY IMPAIRED. (SEE DATA SHEET FOR DETAILS). CEPHALOSPORINS AT HIGH DOSAGE SHOULD BE GIVEN WITH CAUTION TO PATIENTS RECEIVING CONCURRENT TREATMENT WITH POTENT DIURETICS SUCH AS FRUSEMIDE, AS THESE COMBINATIONS ARE SUSPECTED OF ADVERSELY AFFECTING RENAL FUNCTION. CLINICAL EXPERIENCE WITH ZINACEF HAS SHOWN THAT THIS IS NOT LIKELY TO BE A PROBLEM AT THE RECOMMENDED DOSE LEVELS. **SIDE-EFFECTS:** ADVERSE REACTIONS ARE RARE AND GENERALLY MILD AND TRANSIENT, E.G., HYPERSENSITIVITY REACTIONS (RASHES AND RARELY ANAPHYLAXIS), GASTRO-INTESTINAL DISTURBANCES, DECREASED HAEMOGLOBIN CONCENTRATION, EOSINOPHILIA, LEUCOPENIA, NEUTROPENIA AND A POSITIVE COOMBS' TEST; TRANSIENT RISES IN SERUM LIVER ENZYMES. TRANSIENT PAIN AT THE SITE OF I.M. INJECTION. AS WITH OTHER ANTIBIOTICS, PROLONGED USE MAY RESULT IN THE OVERGROWTH OF NON-SUSCEPTIBLE ORGANISMS, E.G., CANDIDA. **M.R.P:** CARTON OF 5X250MG VIALS: RS.142.35, VIAL OF 750MG: RS.89.95.

Trade Mark

ZINNAT

cefuroxime axetil

FOR RELIABLE ORAL POWER

ABRIDGED PRESCRIBING INFORMATION: PRESENTATION: WHITE TABLETS CONTAINING 125MG AND 250MG CEFUROXIME AS CEFUROXIME AXETIL. **USES:** ZINNAT IS INDICATED FOR INFECTIONS OF LOWER RESPIRATORY TRACT, EAR, NOSE AND THROAT, URINARY TRACT, SKIN AND SOFT TISSUE. **DOSAGE:** *ADULTS:* MOST INFECTIONS & LOWER RESPIRATORY TRACT INFECTIONS– 250MG TWICE DAILY, PNEUMONIA – 500MG TWICE DAILY, URINARY TRACT INFECTIONS – 125MG TWICE DAILY. PYELONEPHRITIS– 250MG TWICE DAILY, UNCOMPLICATED GONORRHOEA – 1G SINGLE DOSE. *CHILDREN:* MOST INFECTIONS – 125MG TWICE DAILY, OTITIS MEDIA – 250MG TWICE DAILY. TABLETS SHOULD NOT BE CHEWED OR CRUSHED AND THEREFORE UNSUITABLE FOR CHILDREN UNDER FIVE YEARS OF AGE. ZINNAT SHOULD BE TAKEN AFTER FOOD FOR OPTIMUM ABSORPTION. **CONTRA-INDICATIONS:** HYPERSENSITIVITY TO CEPHALOSPORIN ANTIBIOTICS. **PRECAUTIONS:** ZINNAT MAY IN GENERAL BE GIVEN SAFELY TO PATIENTS WHO ARE HYPERSENSITIVE TO PENICILLINS, ALTHOUGH CROSS-REACTIONS HAVE BEEN REPORTED WITH SOME CEPHALOSPORINS AND SPECIAL CARE IS INDICATED IN PATIENTS WHO HAVE EXPERIENCED ANAPHYLACTIC REACTION TO PENICILLINS. CEFUROXIME AXETIL SHOULD BE ADMINISTERED WITH CAUTION DURING EARLY MONTHS OF PREGNANCY. **SIDE-EFFECTS:** GASTROINTESTINAL DISTURBANCES INCLUDING DIARRHOEA, NAUSEA AND VOMITING HAVE BEEN REPORTED, WHICH ARE GENERALLY MILD AND TRANSIENT IN NATURE. AS WITH ALL BROAD SPECTRUM ANTIBIOTICS, THERE HAVE BEEN RARE REPORTS OF PSEUDOMEMBRANOUS COLITIS. RARELY, HYPERSENSITIVITY REACTIONS, EOSINOPHILIA, AND TRANSIENT INCREASES OF HEPATIC ENZYME LEVELS HAVE BEEN NOTED. **M.R.P:** ZINNAT TABLETS 125MG PACK OF 10'S RS. 235.00, ZINNAT TABLETS 250MG PACK OF 14'S RS. 467.00.

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Glaxo — everything for better health

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GL-7-90R

ASIATIC