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UNIVERSITY OF MINNESOTA

Medical Bulletin

OFFICIAL PUBLICATION OF THE
UNIVERSITY OF MINNESOTA HOSPITALS
THE MINNESOTA MEDICAL FOUNDATION
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ASSOCIATION

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Medical Bulletin

OFFICIAL PUBLICATION OF THE UNIVERSITY OF MINNESOTA HOSPITALS, MINNESOTA MEDICAL FOUNDATION, AND MINNESOTA MEDICAL ALUMNI ASSOCIATION

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Staff Meeting Report

What Happens to Patients Referred to the Psychiatry Clinic?*

Ruth Nyquist, M.A.,[1] and Frank Kiesler, M.D.[2]

The Outpatient Psychiatry Service, faced with an increase in its monthly census figures and concerned about its ability to take adequate care of the referred patients, decided to make a study of what actually had happened to a representative sample of patients. A simple survey was made of the clinic visits of all new patients admitted via regular intake to the Psychiatry Clinic during a six-month period from January 1 to June 30, 1955. The sample included 236 patients. The cutoff date for counting clinic visits was March 1, 1956.

As a backdrop for the report and to enable one to understand the psychiatric social worker's activity, it is necessary to define briefly the operating structure of the Psychiatry Clinic. It consists of a General Practice Section and a Specialty Section—really two clinics functioning in an integrated fashion.

There are four General Practice teams in operation, three at University Hospitals and one at Minneapolis General Hospital. The clinical work of the five to eight junior medical students on each working team is supervised jointly by a senior staff psychiatrist and a staff psychiatric social worker. Each team includes one or two student psychiatric social workers. A clinical psychologist is available as needed.

The Specialty Section consists of the psychiatric residents, the staff psychiatrists who also supervise the residents' clinical work, the staff psychiatric social workers, and the clinical psychologists.

All patients seen in the Psychiatry Clinic are referred from other clinics in the hospital. However, the referral to psychiatry has frequently been initiated by a doctor or an agency in the community. Of the 236 patients, 53% were referred primarily from the patients'

*This is an abstract of a report given at the Staff Meeting of the University of Minnesota Hospitals on May 11, 1956. A copy of the complete report may be obtained by writing to the Editor, UNIVERSITY OF MINNESOTA MEDICAL BULLETIN, 1342 Mayo Memorial, Minneapolis 14, Minn.

[1]Psychiatric Social Work Supervisor.

[2]Assistant Professor, Division of Psychiatry.

own doctors, county welfare boards, and other community agencies. Detailed social history material was frequently available before the patient's arrival. The remaining 47% were referred from other clinics within the hospital.

Except for direct emergency psychiatric consultation, all patients are first seen for an intake interview by a psychiatric social worker who has given the responsibility of routing the patients into the General Practice Section or to a psychiatrist. Before the intevriew, the worker assesses the information available about the patient and, during the interview, secures additional information and observes the patient's behavior. This is done within a framework of concern for the patient and for his fears or worries about himself and about being in the Psychiatry Clinic.

Of the 236 patients, 70% were referred to the General Practice Section and 30% to the Specialty Section. Of the latter group, four failed to keep their appointments, 58 were handled as disposition problems, and 10 were accepted for out-patient therapy. Twenty-two of the 58 disposition cases were referred to psychiatric hospitals for in-patient care, while the rest were returned to the referral source with a consultation report.

Each of the 164 patients referred to the General Practice Section was seen by a general practitioner in training, a junior medical student, who served as the patient's doctor for one to 25 visits. The average number of visits per patient was four. Those patients seen for less than four visits were usually seen for evaluation only, while those seen for four or more visits were usually in treatment.

The student doctor in the General Practice Section usually sees his patients for the first time after having been briefed on the patient and his illness at a supervisory team conference. After the student doctor, his fellow students, and his supervisors have discussed the available information, a preliminary diagnostic formulation is developed and a plan is evolved for completion of the evaluation and for treatment or disposition of the patient. Throughout the ten-week clerkship, the student doctor discusses in supervisory conferences each session he has had with each of his patients. As the patient's immediately responsible doctor, he learns how and when to ask for specialty consultation. He learns to differentiate patients who can be handled at the general practice level from those who need speciaty care. He regularly tests his thinking and practice against the thinking of his student colleagues and his supervisors.

The psychiatric social worker on each team may function as co-supervisor or individual supervisor of the student doctor's clinical work. The worker may work in collaborative therapy with the student doctor—one seeing the patient and the other seeing a parent or spouse who may be equally in need of treatment.

Typical of many patients seen for evaluation in the General Practice Section was a 39-year-old single woman who was referred because of chronic fatigue, weakness, and periodic fainting spells. Her doctor had recognized that she was depressed and knew that she had sacrificed her opportunity for independent adjustment at age 22 when she gave up her job to care for her sick mother. Since the mother's death, she had remained at home with her father. Periodically she had remained in bed a good deal of the time, refused to eat, and had lost weight.

Evaluation in the Medical and Psychiatric Clinics showed no significant physical abnormalities. She was a person who needed to have others give to her as though she were an unhappy, deprived child. However, her belief was that others needed her, that she was remaining at home because her father would be helpless without her, and that, if doctors could only make her body well, she would not feel depressed or need anything from others.

It was our thinking that she was desperately trying to sidestep awareness of her fear of being left alone when her elderly father died. In sessions with the student doctor, she protected herself from dealing with this fear by angrily attempting to coerce him into focusing attention on her physical complaints.

During the fourth interview, she and her father were told that psychiatric hospital care was necessary. Her father accepted the recommendation readily. Although the patient was reluctant, the student doctor handled the situation well, and the patient was referred to a psychiatric hospital for treatment.

The General Practice Section also sees patients whose problems are appropriately treated at the general practice level. A case of this type supervised by a social worker was that of a 32-year-old woman who was referred by her family doctor because of marital difficulties. She and her husband had been married for eight years and had five children aged 2 to 7 years. The patient had a variety of physical complaints, including headaches, nausea, and fatigue. Physical examination showed no significant abnormalities. It was suggested that her physical discomfort was an expression of her anxiety and hostility

toward her husband for his inability to assume a more responsible role in the marriage.

At the time of the intake interview, both the patient and her husband seemed to be sincerely motivated for trying to work things out. The patient was responsive during the interview sessions, moved quickly intc a working relationship with the student doctor, and was able to verbalize much of her resentment toward her husband. Her chief problem was difficulty in sharing her feelings and attitudes with her husband. The husband was seen by another student doctor who found him to be an inhibited, quiet man who was inarticulate regarding his marital problems. The student doctor had to attempt to build a therapeutic relationship within which the husband could discuss some of his own feelings about the marriage.

As the two student doctors became better acquainted with their patients and their supervisor, they became more comfortable in discussing their own reactions to their patients. The student doctor who had seen the wife became aware of his own reactions to women who controlled husbands and recognized his patient's attempts to control the interview situation. He also became aware of what some of the husband's reactions to the wife were and he was able to help the wife appraise her behavior more realistically. The student doctor working with the husband became aware of some of his personal reactions to passive men who allowed themselves to be manipulated by their wives. As he recognized his own feeling, he was better able to help the husband talk about his passivity and his wishes to be different.

Each student doctor tended to become identified with the marital partner that he was seeing, and some minor argument began to arise regarding which partner was responsible for the problems in the marriage. The job in supervision became that of helping each doctor become aware of his own reactions and of how these were important to the work he was doing with his patient. As the student doctors were able to talk together more realistically, it became apparent that the patients were reacting in a much different manner to each other and were talking together in a way they had not done during their entire marriage.

This couple was seen for a total of 18 interviews each. Although some basic personality difficulties on the part of each partner were apparent, it was not necessary to eliminate these in order for the couple to begin functioning in a more mutually satisfying and healthy fashion in their marriage and with their children.

Staff Meeting Report

Evaluation of Marshall-Marchetti-Krantz Operation for Certain types of Urinary Incontinence in the Female*

George W. Janda, M.D.[1]

Long a major problem in gynecology, stress incontinence has been approached by many different operations and maneuvers. Current methods are strictly guided by the specific anatomic and physiologic defects.

The Marshall-Marchetti-Krantz technic raises and supports a prolapsed vesicourethral junction by firm attachment to the posterior surface of the pubic symphysis. The procedure has met fairly wide acceptance and was first employed at the University of Minnesota in April 1951. When results of 22 operations were reviewed, generally after at least twelve months of observation, about 75% of patients were adequately relieved. The method seems worthwhile in well-selected cases.

Before 1900, urethral sphincters were thought to be simple circles of muscle much like the sphincter ani. Actually, mechanisms of closure are more intricate and must be understood for accurate repair. However, their exact function is still uncertain.

Kolischer introduced the idea that muscular fibers at the vesical neck are mainly in the trigone, with a thin, oblique loop around the urethra. Zangmeister noted that the proximal portion of the urethra is closed in an anteroposterior fashion, chiefly because of the diagonal direction of striated and smooth muscle fibers. The slanted direction probably explains both shortening and dilatation of the urethra during urination. In part, however, closure results from the slightly acute angle at which the urethra originates from the bladder. Maintenance of this angle is emphasized in recent operations for stress incontinence.

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*This is an abstract of a report given at the Staff Meeting of the University of Minnesota Hospitals on May 18, 1956. A copy of the complete report, including tables and references, may be obtained by writing to the Editor, UNIVERSITY OF MINNESOTA MEDICAL BULLETIN, 1342 Mayo Memorial, Minneapolis 14, Minn.

[1]Instructor, Department of Obstetrics and Gynecology.

Kennedy, by rather elaborate radiography, demonstrated three groups of sphincters. A lower and a middle ring are formed by striated muscle, and an upper inner sphincter is made of smooth muscle.

In the female, urinary continence and micturition are based on more than inherent urethral musculature. The sphincters acts synchronously with the submucosal venous supply, which behaves like a cavernous body, and with the supporting pubovesical muscles and fasciae.

Voluntary muscle activity may be observed by cystourethrography. Jeffcoate and Roberts employed this technic to investigate stress incontinence. The characteristic changes were (1) funneling of the internal urethral meatus, (2) exaggerated descent of the urethral neck on straining, and (3) dilatation of the urethra.

According to Jeffcoate, the specific anatomic lesion most often associated with chronic stress incontinence is loss of the angle that the urethra makes in joining the bladder. The base of the full bladder normally lies more or less parallel to and just above a line drawn from the underside of the symphysis to the tip of the sacrum. The urethra is relatively straight and joins the bladder at a posterior angle just less than 90°. During straining, the bladder base descends somewhat deeper into the pelvis, but the relationship with the urethra is maintained.

With micturition, however, pelvic supports relax, probably the pubococcygeus muscles. The bladder base, urethra, and upper vagina descend into the pelvis, and the posterior urethrovesical angle is obliterated as the posterior wall of the urethra and the trigone form an almost straight line.

Even with a rather large cystocele, incontinence does not occur if the urethrovesical junction is fairly normal, even though the upper urethra and bladder base may be displaced.

Jeffcoate stated that the characteristic lesion is seen in four of five patients with stress incontinence. In severe cases, the defect may be seen while the woman is quietly sitting or standing. With minor stress incontinence, the defect is generally demonstrated with straining. Funneling of the internal urinary meatus, which usually occurs as the posterior angle disappears, is rarely the sole or major anatomic fault.

Jeffcoate also observed that, in every case where anterior colporrhaphy failed to cure stress incontinence, the natural posterior

urethral angle had not been restored, though funneling might be corrected satisfactorily. When anterior colporrhaphy actually caused stress incontinence, repair had stretched the tissues so as to obliterate the angle.

The function of striated muscle around the urethra is probably to empty the tube as urination ends and to interrupt the stream. The vesicourethral junction serves as the main line of resistance for continence, while voluntary muscles of the lower urethra act during high intraabdominal pressure. On forceful, voluntary interruption of the stream, accessory muscles of the pelvic floor are called into play. The entire base of the bladder and urethra are moved up to a level above and anterior to the resting position. The urethra is thereby lengthened and closed as the posterior urethrovesical angle is brought to an exaggerated normal position.

Many incontinent women, if prepared, can maintain voluntary control when pressure within the bladder is slowly raised to 70 cm. of water but will leak urine on sudden rise to 35 cm. About half of the patients with incontinence are able to interrupt urinary flow, giving further evidence that voluntary sphincter muscles act only as a secondary system of defense.

On examination for stress incontinence, the physician should inquire about the time and circumstances of onset. The possible influence of surgery, trauma, or illness and the extent of dysfunction should be noted. Signs of bladder infection may distinguish urgency from true incontinence.

The physical examination must include neurologic tests. General muscular tone and fascial support are determined. The urethra and bladder are watched during relaxation and bearing down. Support of associated pelvic organs and changes distorting the bladder are observed. The tone of pelvic fascia and muscle may be assessed by palpation of paraurethral supports. If the vesicourethral junction is not evident, descent should be evaluated by catheterization. Dye injected into the bladder may show a vesicovaginal fistula, which is commonly preceded by traumatic delivery or pelvic surgery. Rarely, incontinence results from urethral diverticulum.

If neurogenic bladder is suspected, a neurologist should be consulted about tabes dorsalis, multiple sclerosis, spinal cord lesions or tumors, transverse myelitis, and the like. Spina bifida may not present as incontinence until fairly late in adulthood. Older people are especially prone to low-grade inflammation of the bladder, with irritability and reduced capacity.

Catheterized urine should be examined. In addition, cystoscopic examination should be done to exclude neurogenic deficiencies, local or diffuse inflammation, diverticuli, and neoplasms. The upper urinary tract is inspected by means of dye excretion radiography.

The Bonney urethral elevation test for stress incontinence may indicate whether operation will be helpful. The subject is asked to strain while the bladder neck is supported by two fingers in the vagina, one each side of the urethra. The test is positive, or satisfactory, when involuntary loss of urine is prevented. More complicated cases may be evaluated by cystourethrography, cystometry, or electromyography.

Stress incontinence may be prevented by obstetric precautions; gentle delivery and careful episiotomy repair may avoid permanent damage to the pelvic floor. If pelvic relaxation is noted at the six-weeks postpartum examination, muscular supports can be strengthened by exercises. Kegal restored 84% of 500 women with stress incontinence to normal control by use of perineal exercise and re-education.

Many operative procedures have been devised to restore continence. In 1937, Kennedy improved urethral sphincters by plicating the length of the urethral dorsum. With a modification, this is now the standard procedure at the University of Minnesota; a longitudinal plication is placed near the urethrovesical junction to correct the angle. However, after initial success in 90 to 95% of cases, incontinence may return in 70%, with lapse of time.

As reported in 1949, Marshall, Marchetti, and Krantz employ a suprapubic retroperitoneal approach to the retropubic space of Retzius. Guided by a Foley catheter in the bladder and fingers in the vagina, three pairs of sutures are generally placed in paraurethral fascial supports and fastened to the posterior surface of the symphysis, starting about 1 cm. proximal to the external meatus and ending at the level of the bladder neck.

For additional support, three stitches are placed in the anterior bladder wall just above the vesical neck and anchored to abdominal fascia. The field is examined carefully for bleeding and bladder perforation before closure. A soft rubber drain is usually placed in the wound. The urethra and bladder neck are now well supported and brought forward to restore the acute posterior angle.

In our 22 cases, previous vaginal operation had failed or some evidence was obtained that the urethrovesical junction was not relaxed.

It is likely that a high percentage of patients had relative neurologic deficiency.

Although 95% of subjects had apparently satisfactory results on discharge, only 75% remained continent for twelve months. However, no one was made worse by operation, and most of those not aided by previous surgery were benefited. In 12 of 15 women with positive Bonney tests, results were good a year after operation. The test apparently is of value in predicting poor surgical outcome when negative but does not assure success when positive.

Practically all surgical complication were inflammatory; wound infection or drainage was observed in nine patients. Although none was recorded in this group of patients, hematoma is a define risk, because of the rich venous plexus in the space of Retzius.

Editorial

The Management of Patients with Multiple Injuries

The forces producing injury in patients have increased to a point where multiple injuries are becoming increasingly more frequent. The patient in an auto crash or the pedestrain struck down by a speeding car incurs not only the injury produced by the collision itself, but is commonly subjected to further trauma. This occurs when he is thrown from the car to the street, when he is tumbled down embankments, when he is thrown against obstacles along the roadside, and in many other ways. During the period in which the secondary injuries occur the patient may be unconscious or handicapped in such a way that he cannot protect himself from further injuries. The end result is a patient with multiple injuries to bone and soft tissues, and involving the cranial, chest and abdominal cavities as well.

While textbooks and journals abound with articles describing the management of single injuries, little material is available to the practicing physician which is of help in the face of a complex case of multiple injuries. Certain principles of management are, however, self evident. These are:

I. Careful examination of the patient to determine what injuries are present.

II. Determination of the priority of treatment of these injuries. Those injuries which immediately threaten the patient's life should be given first priority.

III. The use of the most simple effective methods of treatment. Time must not be wasted on complicated operative methods of treatment for one injury if simple conservative methods can be used.

IV. The management of multiple injuries can be staged over a period of a few days so that even the most simple injuries receive treatment. The final disabilities which the patient suffers may arise from simple injuries neglected during preoccupation with more immediately threatening injuries.

In many cases the help of a variety of specially trained physicians and surgeons may be required to gain the best result for the patient. This requires teamwork. Every team needs a captain and one physician should be in charge of coordinating the activities of the team. Only in this way can the best interest of the patient as a whole be protected.

Alumni Association

Luncheon for the Senior Class

On May 31 the Minnesota Medical Alumni Association held its annual Luncheon for the Senior Class in Medicine in the Junior Ballroom of Coffman Memorial Union. Each senior student was the guest of an alumnus or faculty member at the luncheon which served to introduce members of the graduating class to the Medical Alumni Association and its activities. A recent graduate, DR. DENNIS J. KANE, '55, acted as master of ceremonies, and speakers included DR. BYRON B. COCHRANE, '37, *President of the Association,* and DR. E. T. BELL, *Emeritus Professor of Pathology.* It is a real pleasure to welcome the Class of '56 to the Association.

Alumni News

DR. FREDRICK W. SCHILLA, JR., '40, San Jose, California, reports that a large number of his classmates have located in that area: GORDON A. BROWN at Los Gatos; JOHN C. POORE at Palo Alto; HARRY A. WILMER and NEIL K. WHITE at Menlo Park; CHARLES P. MARVIN at Bakersfield; ROBERT F. CONANT at Fresno; and DEXTER E. GUERNSEY at San Luis Obispo. Dr. Schilla is a *Clinical Assistant in Surgery (Proctology)* at the University of California Medical School in San Francisco.

DR. W. THOMAS SPAIN, '50, is *Visiting Clinical Professor of Gynecology* at Bellevue Hospital, New York City, and Director of Medical Service of the Ortho Pharmaceutical Corporation, Raritan, New Jersey.

DR. GILBERT M. STEVENSON, '27, is an *Assistant Clincal Professor of Medicine* at the Medical College of Georgia in Augusta. He is a former Governor of the American College of Physicians for the state of Georgia.

DR. SCOTT N. SWISHER, '44, is *Assistant Professor of Medicine* at the University of Rochester School of Medicine and Dentistry.

IN MEMORIAM

DR. W. H. CONDIT, '90, Minneapolis, Minnesota

DR. G. ARVID HEDBERG, '29, Nopeming, Minnesota

DR. JOHN E. SOPER, '96, Minneapolis, Minnesota

Medical School Activities

DR. JEROME T. SYVERTON, *Professor and Head,* Department of Bacteriology and Immunology, and DR. ROBERT A. GOOD, *Professor,* Department of Pediatrics, were among ten speakers invited to participate in the First Annual James W. McLaughlin Symposium entitled "Current Trends in the Study of Host-Parasite Relationships as Observed in Living Cells" which was presented at the University of Texas Medical Branch, Galveston, Texas, on April 27. Dr. Good also served recently as Visiting Professor of Pediatrics at Ohio State University Medical School.

DR. JAMES B. CAREY, JR., *Instructor,* Department of Medicine, presented a paper entitled "The Serum Dihydroxy-Trihydroxy Bile Acid Ratio in Liver and Biliary Tract Disease" at the American Society for Clinical Investigation, Atlantic City, New Jersey, April 30.

DR. DENNIS W. WATSON, *Professor,* Department of Bacteriology and Immunology, attended the annual meeting of the Commission on Immunization, the Armed Forces Epidemiological Board, on April 7 and 8, Washington, D. C. He also attended the meeting of the Microbiology and Immunology Study Section of the U.S. Public Health Service in Bethesda, Maryland, on April 27, 28 and 29.

The following members of the Department of Bacteriology and Immunology attended the meeting of the Society for American Bacteriologists, April 29 to May 2, at Houston, Texas: DOCTORS J. T. SYVERTON, H. C. LICHSTEIN, K. R. JOHANSSON, E. L. SCHMIDT, W. H. MURPHY, JR.; *Teaching Assistants*—GEORGE MELNYKOWVYCH, R. C. SKARNES, L. G. JAYKO, M. F. FIELD, S. J. DEAL, O. R. EYLAR, and H. D. PUTMAN. Doctors Lichstein and Schmidt served as chairmen of sessions.

DOCTORS MAX H. WEIL, LLOYD D. MAC LEAN, WESLEY W. SPINK, and MAURICE B. VISSCHER, presented their studies on "Mechanism Shock Produced by Gram-Negative Bacteria" at the annual meeting of the Association of American Physicians in Atlantic City, New Jersey, on May 1.

The first general meeting of the new Lay Society of the Twin Cities Diabetes Association was held in the Mayo Memorial Auditorium on Wednesday, May 23. DR. ARNOLD LAZAROW, *Professor and Head,* Department of Anatomy, spoke on "New Hope for Diabetics Through Research." The meeting was open to the public.

Members of the present Senior Class will serve their internships in the following institutions:

Burton I. Abramson
Minneapolis General Hospital
Minneapolis, Minnesota

Dean R. Ackley
Maricopa County Hospital
Phoenix, Arizona

Richard A. Anderson
Milwaukee County Hospital
Milwaukee, Wisconsin

Robert M. Anderson
Bethesda Hospital
St. Paul, Minnesota

Sam Assam
Philadelphia General Hospital
Philadelphia, Pennsylvania

Fred G. Bedford
Detroit Receiving Hospital
Detroit, Michigan

David J. Bender
Philadelphia General Hospital
Philadelphia, Pennsylvania

Beverly J. Blochowiak
Madison General Hospital
Madison, Wisconsin

Kenneth N. Bredesen
U.S. Naval Hospital
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Bethesda Hospital
St. Paul, Minnesota

Richard E. Burman
Bethesda Hospital
St. Paul, Minnesota

Robert D. Bush
City Hospital
Akron, Ohio

Thomas H. Comfort
Ancker Hospital
St. Paul, Minnesota

Jean F. L. Covert
Sacramento County Hospital
Sacramento, California

John H. Dahl
Tripler Army Hospital
Honolulu, Hawaii

Richard L. Davis
Bellevue Hospital, Third Medical Division
New York, New York

Robert E. Dinsmore
Boston City Hospital
Boston, Massachusetts

Donald E. Dougherty
Sacramento County Hospital
Sacramento, California

Frederick E. Drill
Minneapolis General Hospital
Minneapolis, Minnesota

Richard L. Eddy
Sacramento County Hospital
Sacramento, California

Richard A. Edlund
Jackson Memorial Hospital
Miami, Florida

Gerald G. Eklund
U.S. Public Health Service
Baltimore, Maryland

Abel R. Ellingson
Naval Hospital
Oakland, California

Richard L. Engwall
Bethesda Hospital
St. Paul, Minnesota

Darroll J. Erickson
Bethesda Hospital
St. Paul, Minnesota

Duane L. Flogstad
St. Mary's Hospital
Duluth, Minnesota

William A. Foley
Cleveland City Hospital
Cleveland, Ohio

Martin Z. Fruchtman
Milwaukee County Hospital
Milwaukee, Wisconsin

Robert B. Fruchtman
Milwaukee County Hospital
Milwaukee, Wisconsin

Ronald M. Gabrielson
Los Angeles County Hospital
Los Angeles, California

Stanley M. Goldberg
Minneapolis General Hospital
Minneapolis, Minnesota

Mrs. Malka Goodman
Mount Sinai Hospital
Minneapolis, Minnesota

David I. Gottlieb
Los Angeles County Hospital
Los Angeles, California

Richard A. Greenberg
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San Bernardino, California

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Madison General Hospital
Madison, Wisconsin

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St. Petersburg, Florida

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Paul R. Hartig
Ancker Hospital
St. Paul, Minnesota

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Fitzsimmons Army Hospital
Denver, Colorado

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Kings County Hospital
Brooklyn, New York

Gordon W. Hovde
Detroit Receiving Hospital
Detroit, Michigan

Walter S. Huseby
Ancker Hospital
St. Paul, Minnesota

Alan C. Hymes
Kings County Hospital
Brooklyn, New York

Robert H. John
St. Luke's Hospital
Duluth, Minnesota

William C. Johnson
Salt Lake City Veterans
Administration Hospital
Salt Lake City, Utah

Arnold H. Joseph
University Hospitals
Minneapolis, Minnesota

John W. Josse
Massachusetts General Hospital
Boston, Massachusetts

Harold B. Kaiser
Kings County Hospital
Brooklyn, New York

John T. Kelly
Minneapolis General Hospital
Minneapolis, Minnesota

Irene Kosiak
St. Mary's Hospital
San Francisco, California

William J. Kozel
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Gerald W. Kuss
U.S. Public Health Service
Seattle, Washington

James W. LaFave
Philadelphia General Hospital
Philadelphia, Pennsylvania

Warren R. Lawson
Minneapolis General Hospital
Minneapolis, Minnesota

Glenn Lewis, Jr.
Minneapolis General Hospital
Minneapolis, Minnesota

Everett R. Lensink
Minneapolis General Hospital
Minneapolis, Minnesota

Richard B. Lieberman
Long Beach Veterans Administration
Hospital, Long Beach, California

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St. Luke's Hospital
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Minneapolis, Minnesota

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Brooklyn, New York

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Minneapolis, Minnesota

Emil Schulz
U.S. Public Health Service
Seattle, Washington

John M. Sheehan
Veterans Administration Center
Los Angeles, California

Sam Shragg
Harbor General Hospital
Torrance, California

Harold Shure
Harbor General Hospital
Torrance, California

Melvin E. Sigel
Ancker Hospital
St. Paul, Minnesota

John E. Smith
St. Mary's Hospital
Duluth, Minnesota

John B. Sombeck
St. Mary's Hospital
Duluth, Minnesota

John G. Stafne
Mercy Hospital
Toledo, Ohio

Curtis N. Stolee
Minneapolis General Hospial
Minneapolis, Minnesota

Walter C. Stolov
U.S. Public Health Service
Baltimore, Maryland

Alan C. Stormo
Wayne County General Hospital
Eloise, Michigan

Harold J. Stulberg
Harbor General Hospital
Torrance, California

Arthur B. Sundberg
U.S. Public Health Service
San Francisco, California

Ernest B. Swanson
Pennsylvania Hospital
Philadelphia, Pennsylvania

Ralph B. Swanson
Santa Clara County Hospital
San Jose, California

Joseph M. Tambornino
Ancker Hospital
St. Paul, Minnesota

George V. Tangen
Minneapolis General Hospital
Minneapolis, Minnesota

Jack E. Wall
St. Luke's Hospital
Duluth, Minnesota

John P. Williams
Ancker Hospital
St. Paul, Minnesota

Robert M. Wright
Walter Reed Army Hospital
Washington, D. C.

Howard H. Wong
Mercy Hospital
Toledo, Ohio

Max E. Zarling
University Hospitals
Minneapolis, Minnesota

WEEKLY CONFERENCES OF GENERAL INTEREST

Physicians Welcome

Monday,	9:00 to 10:50 A.M.	OBSTETRICS AND GYNECOLOGY Old Nursery, Station 57 University Hospitals
	12:30 to 1:30 P.M.	PHYSIOLOGY- PHYSIOLOGICAL CHEMISTRY 214 Millard Hall
	4:00 to 6:00 P.M.	ANESTHESIOLOGY Todd Amphitheater, University Hospitals
Tuesday,	12:30 to 1:20 P.M.	PATHOLOGY 104 Jackson Hall
Wednesday,	7:45 to 9:00 A.M.	PEDIATRICS McQuarrie Pediatric Library, 1450 Mayo Memorial
Friday,	8:00 to 10:00 A.M.	NEUROLOGY Station 50, University Hospitals
	9:00 to 10:00 A.M.	MEDICINE Todd Amphitheater, University Hospitals
	1:30 to 2:30 P.M.	DERMATOLOGY Eustis Amphitheater, University Hospitals
Saturday,	7:45 to 9:00 A.M.	ORTHOPEDICS Powell Hall Amphitheater
	9:15 to 11:30 A.M.	SURGERY Todd Amphitheater, University Hospitals

For detailed information concerning all conferences, seminars and ward rounds at University Hospitals, Ancker Hospital, Minneapolis General Hospital and the Minneapolis Veterans Administration Hospital, write to the Editor of the BULLETIN, 1342 Mayo Memorial, University of Minnesota, Minneapolis 14.