

Bulletin of the
University of Minnesota Hospitals
and
Minnesota Medical Foundation



Culdoscopy

Volume XXIV

Friday, April 17, 1953

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UNIVERSITY OF MINNESOTA HOSPITALS
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I. CULDOSCOPY

David I. Seibel, M.D.

Introduction

A safe method of visualization of internal organs is of diagnostic value in all specialties. Before the last war, gynecologists attempted to view the pelvic viscera with the peritoneoscope thrust either through the abdominal wall or through the posterior vaginal fornix with the patient in lithotomy position. The attempts were unsuccessful because the intestines and/or adhesions prevented good visualization.

Albert Decker of New York had the ingenuity to place the patient in the knee-chest position, thus permitting air to be sucked into the abdomen after puncturing the cul-de-sac, and thereby doing away with the interference from the intestines. By that means, culdoscopy became an effective gynecologic diagnostic procedure.

By definition, culdoscopy is a procedure of visualization of the pelvic organs by means of a telescopic instrument passed through the punctured posterior fornix while the patient is in knee-chest position.

We also owe a debt to Abarbanel, of Los Angeles, for emphasizing the following points: 1) aseptic, culdoscopic technique is not compromised if the procedure is done in the out-patient examining room or office, and 2) culdoscopy may be done under local anesthesia with very little discomfort to the patient. He added further impetus to culdoscopy by eliminating the cost of hospitalization and removing the risk of anesthesia.

Culdoscopic Technique

The patient is first told what the procedure entails and what is being looked for. The reason for the embarrassing knee-chest position; the fact that she will feel a pin prick on introduction of the local anesthetic into the posterior

vaginal fornix; and the fact that there will be transitory pain on introduction of the trocar are all explained.

The patient is instructed to have a bowel movement that morning or take an enema. A light meal is permitted. It is suggested that someone come with her so as to take her home since she may become dizzy or wobbly from the sedative used to allay tension. Just before the procedure the patient empties her bladder. After that she removes her clothes and puts on a hospital gown. Then she is given 50-75 mg. of sodium nembutal intravenously. The room is darkened.

The patient is then strapped to a holding device utilized to keep her comfortable in the knee-chest position. The holding device effects an exaggerated lordosis with relaxation of the abdominal musculature essential for the production of negative, intrapelvic pressure. (This negative pressure measures 30-55 cm. H₂O)

A Sim's speculum is placed in the vagina, and with gentle traction the posterior vaginal wall is elevated. At this time, the cul-de-sac presents a concave appearance. The posterior lip of the cervix is grasped with a tenaculum. The vagina is swabbed with aqueous zephran. A long 19-gauge needle (attached to a syringe containing 1% procaine) is thrust through the apex of the concave surface of the cul-de-sac and withdrawn. A faint whistle of inrushing air is heard, establishing the fact that the peritoneal cavity has been entered. About 2 cc. of procaine are infiltrated into the vaginal mucosa at the site of the needle puncture.

The trocar, locked in a sheath, is thrust through the anesthetized area at a downward angle. The trocar is loosened, withdrawn slowly until the sucking noise is again heard, and then relocked. The abdomen is then filled with CO₂ through a valve on the side of the sheath. Approximately 600-1200 cc. of gas are drawn in from a filled rubber bag by virtue of the negative intrapelvic pressure. CO₂ is used because it is rapidly absorbed (within 2-3 hours) and

because it is much less irritating to the peritoneum than is air. The trocar is then withdrawn, and the culdoscope introduced into the sheath and locked in place.

After the culdoscopic examination has been completed, the speculum, tenaculum, and culdoscope are removed. The straps of the holding device are loosened, and the patient gradually lowered to a prone position on the table while the operator forcibly compresses the abdomen to expel as much gas as possible before the sheath is removed from the cul-de-sac. After 5-10 minutes, the patient is allowed to dress.

She is instructed not to douche or have intercourse for five days. Antibiotics are not used. We warn the patient that there may be shoulder-strap discomfort later from the gas in the abdominal cavity. This can be immediately relieved by lying down with a pillow under the hips.

Contraindications to Culdoscopy

The following conditions are considered contraindications to culdoscopy:

1. Fixed cul-de-sac mass
2. Fixed third-degree retroversion of the uterus
3. Acute vaginitis
4. Cardiac or respiratory embarrassment in knee-chest position.

Complications of Culdoscopy

No death has ever been reported due to culdoscopy. Complications of culdoscopy are few and rarely serious. The following have been reported: (The last three have not occurred in our series.)

1. Failure to enter the peritoneal cavity.
2. Prolonged pain from the pneumoperitoneum.
3. Perforation of the rectum.
(As the rectum is perforated retroperitoneally, no treatment is required other than discontinuance of the procedure.)
4. Pelvic abscess.
5. Hemorrhage from the vaginal mucosa.

Table 1. Culdoscopies at University Hospital

Indication	# Patients	Findings	Comment
Ectopic pregnancy possible probable	4	2 normal 1 unruptured rt. tubal 1 left tubal abortion	hospitalization unnecessary confirmed at laparotomy confirmed at laparotomy
Adnexal mass	4	1 ovaries normal; myoma 1 left ovarian tumor 1 left hydrossalpinx 1 pedunculated corpus luteum attached to remnant of ovary	patient had been told operation needed for "ovarian tumor". clinical diagnosis: pedunculated myoma. Laparotomy indicated. patient post-menopausal; para 0-0-0-0, 8 cm. cystic mass on routine exam. Laparotomy unnecessary. ovary on that side said to have been removed because of dermoid cyst.

Possible endometriosis	4	normal	all had histories and findings suggestive of endometriosis.
Unexplained infertility	10	6 normal 4 old pelvic inflammatory disease; predominantly unilateral.	all had normal tubal insufflation tests. Three previously pregnant.
Tuboplasty - preoperative	3	2 tubes normal 1 fimbrial adhesions	all had cornual blockage
Masculinizing syndrome	3	ovaries normal	
Amenorrhea	4		part of study program to evaluate x-ray therapy.
Pain	5	1 rt. hydrosalpinx 1 old pelvic inflammatory disease; predominantly right-sided. 1 varicosities of broad lig. 1 blood clot attached to corpus hemorrhagicum 1 normal	sent to physiotherapy for diathermy patient complained of RLQ pain; very extensive workup elsewhere with no diagnosis laparotomy for "appendicitis" prevented. psychosomatic disease masquerading as acute abdomen. Unnecessary laparotomy prevented.
Miscellaneous	2	1 old bilateral tubo ovarian masses 1 normal	irregular and profuse bleeding since age 15. D & C showed endometrial hyperplasia. post-menopausal; marked weight loss; carcinomatosis suspected.
Failed	3		
TOTAL	42		

Discussion of Indications for Culdoscopy

Although the acutely ruptured tubal pregnancy offers no problem in diagnosis, the unruptured or "chronic-leaker" type of ectopic pregnancy is frequently characterized by an atypical course that defies accurate diagnosis. In the past, protracted hospitalization was required in order to observe closely the patient and to carry out a battery of diagnostic aids. The latter included frequent hemoglobin determinations, biologic pregnancy test, curettage, and cul-de-sac aspiration. Today culdoscopy makes it possible accurately to rule in or rule out suspected ectopic pregnancy with the saving of much time and expense.

The importance of differentiating an ovarian tumor, demanding immediate removal, from a pedunculated myoma which requires no therapy -- needs no comment.

The patient with a large mass of endometriosis is a surgical problem. However, the gynecologist frequently sees patients who give a history very suggestive of endometriosis but in whom palpitory findings are only those of cul-de-sac tenderness or slight adnexal tenderness and enlargement. In the past, laparotomy was often resorted to for diagnosis, and in many cases, endometriosis not found. Or, the gynecologist may be consulted by a patient who has been told that she has endometriosis. Merely disagreeing with the previous diagnosis does not necessarily offer any reassurance. Culdoscopy, in such patients, offers a means of more accurate diagnosis and more intelligent management depending on each patient's reproductive requirements.

Unexplained infertility is a frustrating problem to the physician. A thorough infertility diagnostic survey including a tubal insufflation test may disclose no abnormality. Yet, in 4 out of 10 such patients, culdoscopy examination revealed evidence of a previous pelvic inflammatory disease, in which the gross involvement was predominantly unilateral. It is probably fair to conclude that the tube on the grossly unaffected side would

show sufficient damage microscopically to account for the infertility. This conclusion is strengthened by the universally poor prognosis demonstrated by these patients. Thus, whereas previously the standard infertility diagnostic survey failed to evaluate the important factor of ovum transfer, culdoscopy now helps us to answer the question as to whether or not the egg gets into the passes down the tube.

In the recent literature, another group of patients has been removed from the category of unexplained infertility. Although, in these women endometrial biopsies showed secretory changes, and basal body temperature curves were biphasic, culdoscopy revealed luteinization of follicles, rather than ovulation and corpus luteum formation. In the future, we intend to culdoscoped patients with unexplained infertility shortly after the time of expected ovulation in an attempt to find such functional pathology.

Candidates for tuboplasty are being culdoscopyed in order to ascertain the full extent of tubal and peritubal pathology. These patients must be made aware of all the facts before they are permitted to decide to undergo an operation which offers such a small chance of salvage.

Three patients on the Medical Service with masculinizing syndrome were culdoscopyed as part of their diagnostic work-up. The object was to rule out arrhenoblastoma.

Patients with amenorrhea are being culdoscopyed prior to "stimulating-dose" x-ray therapy in an attempt to correlate the gross appearance of the ovaries with therapeutic result.

Culdoscopy for pelvic pain has been rewarding as the table indicates. Especially is one's position in treating pelvic pain as of psychosomatic origin greatly strengthened by the knowledge that the pelvic organs are normal.

Culdoscopy, in the hands of others, has been utilized for the following in-

dications:

1. To visualize the pelvis in infertile patients who give a history of previous surgery, such as appendectomy or ovarian "cystectomy".
2. For suspected pelvic tuberculosis.
3. For suspected Stein-Leventhal syndrome (amenorrhea, hirsutism, sterility, large pale ovaries)
4. To create a pneumoperitoneum for the radiologic diagnosis of abdominal conditions.
5. To differentiate acute salpingitis from acute appendicitis or ectopic pregnancy. This is of value in clinics handling a large indigent population.

Summary

The technique of culdoscopy has been described.

The contraindications to culdoscopy have been listed. Complications are few and rarely serious.

Forty-three patients have been culdoscoped at the University of Minnesota Hospitals. The indications have been

tabulated.

Culdoscopy under local anesthesia in the out-patient examining room is a safe and useful gynecologic diagnostic procedure.

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II. MEDICAL SCHOOL NEWS

Coming Events

- April 21 Minnesota Pathological Society Meeting; "Dietary Liver Damage in Africans"; Dr. John F. Brock, Professor of Medicine, University of Cape Town, South Africa; Owre Amphitheater; 8:00 p.m.
- April 27-29 Continuation Course in Gastroenterology for General Physicians
- April 28 Clarence M. Jackson Lecture; "Gastro-Intestinal Symptoms with Particular Reference to Motor Disturbance"; Dr. Chester M. Jones, Boston; Owre Amphitheater; 8:00 p.m.
- April 29 Family Doctors' Day; Heart Hospital Theater; 1:30-5:30 p.m.
- April 30 Medical Six O'Clock Club Dinner; Coffman Memorial Union Main Ballroom; 6:30 p.m.
- May 4 Seminar on History of Medicine; "The History of Colon Surgery"; Dr. William C. Bernstein, Minneapolis; Todd Amphitheater; 7:45 p.m.
- May 7 E. Starr Judd Lectureship; "The Endocrinology of Mammary Cancer"; Dr. Charles B. Huggins, Chicago; Owre Amphitheater; 8:15 p.m.
- May 7-9 Continuation Course in Surgery for General Physicians
- May 11-13 Continuation Course in Arthritis and Allergy for General Physicians
- May 12 Duluth Clinic Lectureship; Sir Alexander Fleming, London; Museum of Natural History Auditorium; 8:15 p.m.
- May 13 Symposium on Antibiotics; Sir Alexander Fleming, London; Owre Amphitheater; 2:00 p.m.

* * *

Continuation Course

The University of Minnesota will present a continuation course in Gastroenterology for General Physicians which will be held at the Center for Continuation Study from April 27 to 29, 1953. All phases of gastro-intestinal disease will be covered, and emphasis will be placed on therapy throughout the course. The visiting faculty will include Dr. Chester M. Jones, Clinical Professor of Medicine, Harvard University Medical School, Boston, who will also deliver the Jackson Lecture on the evening of April 28. The course will be presented under the direction of Dr. C. J. Watson, Professor and Director, Department of Medicine, and the remainder of the faculty will include clinical and full-time members of the staff of the University of Minnesota Medical School and the Mayo Foundation.

* * *

First Family Doctors' Day to be Held

Members of the Medical School faculty have for some time believed that their relationship with the physicians in active practice in the state has not been as close as they would like it to be. They know that they could profit by a closer association with practicing physicians, and they believe, too, that many physicians in the state would find it of interest to visit the Medical School. As one means of bringing about this closer relationship, the Medical School is planning a series of Family Doctors' Days. These will be presented at intervals throughout the year. The first Family Doctors' Day will be held on Wednesday, April 29, and will be presented by the Department of Medicine. A very informal program has been planned and will include the following features:

(Continued on next page)

12:00 noon Luncheon with Department of Medicine staff -- Powell Hall Recreation Lounge
2:00 p.m. Antibiotics in Medical Practice -- Wesley W. Spink -- Heart Hospital Theater
3:00 p.m. Case Presentation -- C. J. Watson -- Heart Hospital Theater
4:30 p.m. Clinical-Pathological Conference -- C. J. Watson and staff -- Heart Hospital Theater

A most cordial invitation is extended to all physicians to attend this activity.

* * *

Medical Six O'Clock

Students, faculty, alumni, and friends of the Medical School once again look forward with pleasure to the annual Medical Six O'Clock Club Dinner. This year this event will take place on Thursday, April 30, at 6:30 p.m. in the Ballroom of the Coffman Memorial Union. Sponsored by the Medical Inter-Fraternity Council this event has proved to be an excellent means of bringing students and faculty together. That well-known humorist and urology professor, Dr. C. D. Creevy, has consented to serve as toastmaster. In addition to the customary skits by members of the various fraternities--always amusing if discomforting--the program will include brief messages from Doctors Leo G. Rigler, Vernon D. E. Smith, and Harold G. Benjamin. Tickets are available in the Medical School Office or may be purchased from members of the Inter-Fraternity Council.

* * *

Students' Activities

Nineteen members of our senior class were initiated into Alpha Omega Alpha Honorary Medical Fraternity at its annual meeting on April 13. The following students were honored for their outstanding work:

Richard W. Anderson	Phillip W. Maus
Paul F. Bowlin	Donald R. McFarlane
Phyllis W. Brown	James C. Melby
Robert S. Fischer	Harold G. Richman
Seymour Handler	Rudolph J. Ripple
Daniel Hanson	Thomas L. Schafer
James R. Jude	Edward L. Segal
Thomas H. Kirschbaum	Nathan T. Sidley
Wendla Leinonen	Francis B. Tiffany

Barbara A. Ure

Following the initiation ceremonies the initiates, members and guests were privileged to hear an inspiring talk by Dr. Arnold Lowe, Pastor of Westminster Presbyterian Church, Minneapolis. Dr. Lowe spoke on "Common Problems Physicians and Clergymen have to Meet."

During the recent Spring vacation period approximately 50 members of our junior and senior classes, many accompanied by their wives, were the guests of the Eli Lilly Company of Indianapolis. While in Indianapolis they inspected the Lilly Research Laboratories and toured pharmaceutical, biological, and antibiotic production facilities.

* * *

As a public service the following article is reprinted from the Harvard Medical Alumni Bulletin, January, 1953, Page 6, with the kind permission of Dr. J. Engelbert Dunphy, Editor.

ROUNDSMANSHIP

Henry Jacob Bulfinch, '56

They think that they shall be heard for their much speaking. (Matthew, VI, 7)

Stephen Potter has done great service to civilization by defining certain principles of conduct which he has identified as Lifemanship. This is best illustrated by its fundamental axiom, "If you're not one up, you're one down." Perhaps nowhere is Lifemanship better found than at what at inside* hospitals is called Grand Rounds.

Reflection on the term "Rounds" confirms one's faith in the power of the English language to bewilder. What formerly was an occasion upon which a group of doctors walked together around the wards dispensing knowledge and healing suggestions has become a weekly carnival having for each who attends some special significance. For some, particularly the nurses, it is a refuge from the hurly-burly of their duties; for others, an educational exercise both to give and to receive. For many it is a chance to sit back** and enjoy the passing scene in which the Houseman, the Rowman, and--at times--the Patient, figure so prominently. It is the Housemen and the Rowmen who create the atmosphere of Rounds known to Galen, that Master Roundsman, as the "Aura Roundsealis", and it is to them, that the principles of Roundsmanship apply.

Between the two, the Houseman and the Rowman, there exists a struggle that is Martian in scope. The Houseman, dressed in white as befits his tender years, is the champion of trial and error. To him is allotted the first move. The Rowman, by contrast, is on the side of accumulated wisdom and clinical experience. To a certain extent he is at the mercy of the Houseman but even more, he is at the mercy of the other Rowmen who occupy the rows or benches in definite order: Frontrowmen, Second-rowmen, and Backrowmen.

I. Housemanship

Since it is the Houseman who arranges the events of the carnival, we must first direct our attention to the rules and general principles which govern his conduct, not overlooking certain pitfalls and grave errors into which he may fall.

Since the Houseman knows what the events are to be, he has little interest in the show itself other than to practice Housemanship in order that when the hour ends he will be one up and the Rowmen one down. Ordinarily he will do well to see to it that so far as he is concerned the one-downness is not confined to any one Rowman but to all the Rowmen as a group. There are many ways to accomplish this which for convenience we will divide into three categories, Houseman-Rowman play, Houseman-Patient play, and the Proper use of Props.

A. Houseman-Rowman play

Since the Houseman makes his first contact with the Rowmen when he begins to

* To distinguish them from "outside" hospitals.

**Or, in some cases, to sit hunched forward, head in hands.

present the case at hand, the traditional opening gambit is to give the patient's chart to the Frontrowman who holds the lowest position of those present, rather than to the senior man. This does not necessarily annoy the senior man, but is most effective in irritating the other Frontrowman because protocol has been so hideously violated. If a Secondrowman has by some indiscretion taken a position in the front row, or if he has been trapped there from a previous round, it is a most effective play to hand the chart to him.

Another unfailing way for the Houseman to score is to present a case in which treatment has been unsuccessful or some unforeseen dire complication has supervened. This should be reported in a matter-of-fact, rather diffident tone of voice, a "bad-lick-but-there-it-is" sort of attitude. The same situation may also be dealt with by assuming a super-professional, calm demeanor, talking down to Rowmen in much the same manner in which the anxiety of the patient's family was allayed on the previous day.

This is a potentially disastrous play, however, which may well leave the Houseman "one down" if the Frontrow is united in its horror of the direct violation of time-honored custom. Wise is the Houseman who splits the Opposition by injecting into his presentation a non-sequitur about which there is an emotional rather than a rational disagreement.

In Housemanship the element of mystery must never be neglected. The point of the presentation and the nature of the problem should be suitably obscure. The advanced Houseman can bring the Rowman to a point of frustration at which he will attempt to elicit the essential information by questions that he will hardly dare ask for fear that the information has in fact been given out but that due to his inattention he has missed it. To ask for it now would make him lose face. Whether he asks for it or not, it is good Housemanship to have created the conflict.

Much can be made of presenting a patient en surprise, that is, failing to notify the Rowman who has operated upon the patient that his handiwork is to be on display. The Rowman will, therefore, have no prepared remarks and will not, it is hoped, have had time to look up the one significant article on the subject. He will thus be torn within himself as to how much to say about the case. Conflict again will have been created. The situation can be further exploited by the Houseman if he makes a point of removing the appropriate volume from the library several days before and perhaps even reading from it after the Rowman has stammered out his garbled and ineffectual words.

In the same vein, a situation of strength can be created by inviting a member of the Medical Staff to discuss a case with a prepared speech and slides for perhaps thirty minutes of an hour in which the showing of six cases had been planned. Though this may contribute greatly to the education of the representatives of the Nursing School and Medical Arts Department seeded among the Backrowmen, it produces little but a restless ferment among those down front.

B. Houseman-Patient play

The trained Houseman becomes expert in his handling of the patient. Nothing, for example, so breaks the ice as the presentation of an infant surrounded by all the trappings of childhood; balloons, stuffed animals and the like. On such occasions the close observer will be mildly startled to see several of the Frontrowmen surreptitiously trying to win the attention of the tiny patient who according to time-honored custom is presented as "Mister" or "Miss" Bizbee. At the other end of the scale, a spry elderly patient should be introduced as of something greater than her actual age. This will be immediately corrected by the patient and if the Houseman can then manage to blush prettily, he has scored again. By contrast, it is distinctly poor

play to ask the patient how he or she feels since only one reply is acceptable.

Many broad points of policy must be decided in the handling of patients. Much can be said for rushing the bed in and out so fast that no one can be sure whether or not it actually contained a patient. By contrast, the patient may be kept throughout a long and complicated presentation, during which preferably he should lie curled up in a ball, back to audience, with face covered. A particularly effective form of Housemanship is to present three to five patients at once, so that the amphitheatre furnishes a scene of intense activity not dissimilar to a Bruegel canvas.

Bed crashing is best reserved for patients who are no more than one day post-operative. As the bed is run solidly against the door jamb, a barely audible murmur of "shame, shame" can be made out running through the audience. If the bed in question is equipped with a five-pint bottle hanging from its side, the effect is heightened. A particularly useful maneuver is to arrange that a constant drainage catheter or common-duct tube should drain not into the bottle, but onto the floor during the presentation of the case.

C. The proper use of props

Aside from the patient and his various appurtenances, the Houseman has at his disposal only a few props, chief among which is the x-ray viewing box. With proper use, however, much can be made of this. It is axiomatic, for example, that at some time during the rounds films should be displayed in a reversed position--so called situs inversus radiologicus. The combinations possible with spotfilms are inexhaustible. A particularly useful maneuver is to drag the viewing screen forward so that all may inspect the films more closely. At the critical moment the light cord to the apparatus becomes inadequate and all is dark. Great effect can then be created in the efforts to restore illumination.

Much can be done by the proper use of the pathological specimen. During the presentation of the patient, it should be kept in a prominent place discretely covered by a voluminous pile of wet rags or sodden paper towels. It should always repose upon an evil-looking enameled platter or in a battered and obviously contaminated basin. As the patient is wheeled out, the trophy is then triumphantly unveiled, quickly thrust upon the nearest Frontrowman with the suggestion that it be circulated freely so that all may share its contagion. So far as possible it should be arranged that the pathologist has taken sufficient sections from the key point of the specimen so as to make orientation virtually impossible.

III. Frontrowmanship

The Frontrowman occupies a key position in the structure of Rounds. His place is more than to sit in judgment, he represents continuity and accumulated wisdom. This is to be scattered among the pilgrims who have come to learn. At the same time, he must defend his place among his peers and guard himself from the Houseman. His techniques are many.

The authority and stature of a Frontrowman is often demonstrated by the degree with which he undertakes to converse with his neighbor while a case is being presented or another individual is discussing it. In effect, he creates a diversion. If this is aimed at the Houseman, it can be made most effective by inclining one's head towards a neighbor, looking the Houseman directly in the eye and asking in a stage whisper, "What's this boy's name?" The answer, "Don't know--must be a striker," virtually assures triumph.

A very useful form of Diversionship is to whisper to one's neighbor in tones

inaudible even to him some witticism of any quality, followed immediately by a loud chortle or scarcely subdued laugh. The neighbor can only nod his head vigorously and smile wanly. The impression, however, will have been created among the Housemen and Rowmen alike that some priceless thing has been said or done which they in their dull-witted or inattentive state have failed to appreciate.

There is the technique for capturing the center of the verbal stage by the judicious interruption. This requires finesse that comes of years of experience and should be done in a way that the other members of the audience relish. Perhaps the surest method is that of the interrogative sentence. This is a question which during its first few words sounds as if the asker were really requesting information. A deft Frontrowman, however, can easily, without drawing breath, allow the words to reorient themselves so that instead of asking, they tell. Thus, if a patient has had necrosis of a colonic suture line following resection, one can say, "Knowing very little about these matters, I should like to ask whether you don't think it is wise to examine the bowel near the resection edge for pulsating vessels?" One thereby creates the effect that (1) he knows a great deal about these matters; (2) that with razor sharpness he has come straight to the heart of the matter.

No positive statement on the part of a Houseman or Secondrowman should be allowed to pass without some qualification by a Frontrowman. This can often best be done by citing from one's own experience examples of somewhat similar cases which really have little bearing on the subject at all. For instance, if a patient is presented as an example of the benefits of a given treatment A, the deft Frontrowman will not discuss treatment A (with which indeed he has had no experience), but merely describe with warmth and humor a case which he has handled with brilliant effect by treatment B, the method long established as the best, although not always adequate, one.

Complete denial of a positive statement made by a Junior is best handled by Distortionship. After a judicious interruption, the Frontrowman proceeds sonorously down the verbal stage with a definite sequence of moves: (1) expression of great interest in what Doctor Doe has said; (2) direct misstatement of Doctor Doe's argument prefaced by "If I understand you correctly"; (3) entire agreement with the revised, mirror-image version of Dr. Doe's argument. An authoritative impression of good fellowship is thus created except in Dr. Doe, whose meaning having been exactly reversed by Dr. Frontrowman, realizes that he has been had again.

The Courageous and righteous castigation of the Houseman for some minor error in the handling of a case is always effective in creating an impression though it can only be done by One Who Has Arrived. The Frontrowman, however, must be continually en garde lest he is being mouse-trapped into a display of platitudes. A method of correction that invariably succeeds is to read from the record any significant item which, in his presentation, the Houseman has failed to incorporate, or has quoted incorrectly. Much can be gained by an obviously careful perusal of a patient's new, or old, record, with an occasional aside to one's bench-mate. Unless the Houseman is exceedingly well briefed in the case at hand, or has taken the precaution to see that the record has not fallen into the hands of a known Record-Reader (see Sec. A, Part I, Housemanship) he can usually be put completely off balance.

Humility has many uses to the Frontrowman. Should a Backrowman ask a question that defies answer, the alert Frontrowman will hesitate, verbally, to reply to the question. Then, while pleading nolo, he will nail another Frontrowman by tossing the ball directly in his lap, thus: "Perhaps Doctor Throop would be willing to answer that question since he knows more about these matters than I." Dr. Throop, of course, does not, but feels impelled to say something. This thoroughly discredits him for the balance of the Rounds and Frontrowman A emerges as the humble handservant of

Truth. The Backrowman is more confused than ever and wishes that he had not asked the question. The whole episode serves to discourage further questions from the Backrowmen and thus a proper Aura Roundseal is preserved.

A successful gambit may be occasionally achieved by complimenting the Houseman and his associates effusively on the management of a case. This is particularly effective if the patient really represents a rather mediocre result of what is, at best, a questionable form of treatment. The Frontrowman should purposely misinterpret the result to be an excellent one. This ostensibly magnanimous maneuver creates a sense of uneasiness in the Houseman who knows the result is not a good one, knows that the Frontrowman knows, and cannot understand his motive in using the Patronship play.

There is one prestige maneuver, namely Camaraderieship, that is of great utility. In essence, Frontrowman A, finding himself cornered in argument with colleague B, quotes as his authority leading figures in other medical capitals whom he refers to by their nicknames, thus: "When I was last in London, Archie Heneage told me that he had given up cutting the stem cryptoleus and relies entirely upon drainage through the ptyaloid apparatus." The drawback to this form of play is obvious. Frontrowman B, having been given the green light, may be able to quote celebrities faster than A. If play is then conducted along these lines, much prestige may be lost by both A and B as nicknames fly back and forth like pillows in a pillow fight. A surer form of Camaraderieship is to introduce a member of the international set to the front row. If this figure can then be lured into making a few suitably obscure remarks or will, at the appropriate moments, nod and grunt knowingly, his sponsor has indeed scored.

III. Secondrowmanship

The Secondrowman may be considered a larval stage. He will fall into one of three categories: assistant surgeons of the regular staff, middle-aged regular attendants at Rounds who possess considerable stature in their own "outside" community, and Fourthfloormen.* The Secondrowman operates according to the general rules of order laid down for his seniors. Thus he may create a diversion, interrupt, qualify, distort, be humble or expound.

The Secondrowman ordinarily should be humble, with one exception to be noted later. Thus he should apologize for the presentation of one of his cases in some such manner as: "I thought at the last minute that it would be worthwhile to bring this patient down since he perhaps illustrates one or two interesting points." This creates the impression that in the rush of practice he has been able to gather his wits long enough to recognize a problem when he sees one, but not long enough to prepare a discussion of it. The discussion which follows must be carefully given in a halting and hesitating manner so as not to betray the two hours of rehearsal which had been secretly devoted to it the night before.

The Secondrowman, middle-aged-regular-attendant type, is expected to look pleasant and relaxed and to say very little. He should, however, fill in the awkward gaps in the proceedings which occasionally occur, by telling of an interesting case with which he has just been confronted. This should never be done with an air that would lead anyone to suspect that such cases are not often seen in this large teaching center. It should be accompanied by an earnest attitude as if seeking guidance

* It is recognized that this term may be a local one and perhaps Researchman, or even, as some have suggested, Trainedsealman, might be more appropriate. However, the "Fourth Floor" is so distinctive a place, the author has chosen to preserve this terminology.

and advice. Since no advice will be forthcoming the remarks should be brief.

The Fourthfloorman's contribution to Rounds should be preserved as a very special one. He has come to deliver a Message and the Message will be good. He should come to Rounds early and be discovered checking formulae that he has put upon the board by doing quick calculations in the corner using Greek letters and a slide rule. A bit of unusual apparatus which blinks balefully and which emits ominous and cosmic ticking sounds can create a superb atmosphere of suspense and anticipation. The Message must be a crisp one. It need not instruct. It need not be clear. But it must be authoritative. Camaraderieship is usually out of place, but there should be implied a complete familiarity with and mild contempt for other prominent workers in the field, their co-workers and their laboratories.

If the Message has been delivered correctly, there will and should be no discussion. An admiring silence will ensue, broken only by the Houseman jouncing in the next patient, who, if the Fourthfloorman has arranged things properly, should represent the most banal of problems such as a case of appendicitis treated by appendectomy.

IV. Backrowmanship

Backrowmanship, as has been implied above, is merely the art of sitting still.

Reference

¹Potter, S. Lifemanship. Henry Holt & Co., New York, 1950.

EDITOR'S NOTE: Bulfinch is to be warmly congratulated on the publication of this work, for he has indeed performed a service for Medicine in general and in particular for academic or Halls of Ivy Medicine. With most of his concepts we are in full accord. Although its fundamental principle, i.e. if you're not one up, you're one down, remains constant, we are sure that the actual practice of Roundsmanship varies from one locality to the next. We hope that it will not appear presumptuous to expand somewhat on Bulfinch's theme.

Ever since our first introduction to the memorable works of Stephen Potter^{1,2}, we have been convinced that it is in a medical setting that Lifemanship really comes to fruition. The halls and classrooms of a teaching hospital spawn Lifemen as a swamp does mosquitoes. We might profitably explore some further ploys and gambits in the practice of Medical Lifemanship--or Roundsmanship as Bulfinch has so aptly called it.

Osler-quotesmanship. This relatively simple ploy can be put to use either by the beginning Second rowman or by the Backrowman. (As we shall develop presently, we do not agree with Bulfinch on the role of the Backrowman.) It consists merely of stating (Secondrowman): "As Sir William Osler once said, '-----',?" or by asking (Backrowman): "Wasn't it Sir William Osler who said, '-----',?" This, of course, not only acknowledges once again Medicine's debt to a great physician and teacher, but when appropriately used implies that the speaker is well-steeped in medical classics. Suitable quotations are readily available in "Aequanimitas with Other Addresses,"³ a volume thoughtfully supplied to graduating medical students by one of the pharmaceutical houses. However, a Secondrowman must be careful to use this ploy only in discussions with persons considerably less sophisticated medically than himself, preferably second or third year students. Backrowmen may utilize it at will, since even a faint glimmer of acquaintance with medical history exhibited by a member

of this group will be roundly applauded.

Advanced Osler-quotesmanship. In contrast to the preceding, this ploy is a favorite of some of the more senior Secondrowmen and at times can stand the Frontrowman in good stead. It is especially helpful, for example, if Frontrowman A is being badly outquoted on subjects in the current literature by his fellow Frontrowmen and perhaps--perish the thought!--even by the Secondrowmen. If, in such a circumstance, the harried Frontrowman can manage a philosophical quotation beginning, "As Sir William Osler said, while at Pennsylvania, '---.'", the discussion can usually be terminated effectively and in favor of Frontrowman A. Naturally, this ploy carries with it the implications of the preceding one and the qualifying phrase, while at Pennsylvania, establishes the speaker as a true follower. It must, however, be used with caution for there is always the danger that Frontrowman B will know that the quotation in question stems from the Oxford era.

Camaraderieship, Continental Type or the Deutschland über Alles Gambit. Bulfinch has called attention, and rightly so, to the camaraderieship maneuver. However, in our opinion the effectiveness of this is increased manyfold if combined with the Macintosh Finisher or Advanced Languaging as described by Potter¹. The play then goes something like this: Frontrowman A has just finished examining a patient with a most confusing array of symptoms and physical findings. A spirited discussion, generating more heat than light, is taking place among the Secondrowmen as to whether the patient has Addison's disease, non-tropical sprue, pan-hypopituitarism, or the Rénon-Delille syndrome. At this point Frontrowman A says, "As Prof. Otto von Dieselmacher of Leipzig used to say when confronted by a problem of this type, 'Wenn man eine Gesellschaft brachen hat, dann man die alte Meidung wachst.'" Adjournment of the conference regularly follows immediately. It is believed that at least two third-year students decide to drop out of school each year after witnessing the appropriate application of this gambit.

The Subspecialty Denial. Held in high regard especially by Secondrowmen, this gambit boasts a wide field of usefulness. Secondrowman Z, whose interest in, say, hematology is well known and whose relative naivete in the field of cardiology is likewise acknowledged, is confronted with a cardiac patient while making general medical rounds. After making his examination, he states, "I'm no cardiologist, but I believe this patient has an auricular septal defect." The principal virtue of this gambit is its absolute safety. Possible results are as follows: 1. If subsequent studies prove him wrong, nothing has been lost because, after all, he is no cardiologist, as everyone knows, and at least he has been thinking and willing to entertain a new idea. 2. Should he prove to be correct he has demonstrated (a.) that he is after all a pretty sharp cardiologist even though he does not consider himself one, and (b.) that cardiology is, in reality, mere child's play.

The Tangential Specific. This should be reserved for the use of Frontrowmen of real stature who are expected to comment on every case, regardless of type. The play is as follows:

Moderator: Dr. Feep, would you comment on this interesting case of multiple myeloma?

Dr. Feep: The thing that has always interested me about this disease is the renal involvement that often occurs. The best classification of renal disease with which I am familiar is the one proposed by Ellis in the British Medical Journal in 1940, I believe. In it, he divides...

The particular conference, ostensibly a hematology case presentation, will of course be remembered as Dr. Feep's clinic on renal disease.

Backrowmanship. It is on this point that we disagree with Bulfinch. We believe that he has accorded the Backrowman rather cavalier treatment. The Backrowman has at his disposal an excellent ploy, Fingernail Clipmanship. The steady snip-snip-snip of the Backrowman's fingernail clipper can effectively dominate a conference. We have seen an able Frontrowman overlook completely a classical machinery murmur simply because an adept Clipman among the Backrowmen provided sufficient distraction. This ploy is, of course, somewhat limited by the relatively small amount of raw material available to the individual Clipman. It is considered poor Clipmanship form to remove one's shoes and socks in an attempt to augment the raw material supply.

Once again we commend Bulfinch on this well-conceived and well-executed study. We believe that his paper is in the nature of a preliminary report. Further study of the problem is warranted, and we await eagerly the report of his follow-up observations.

References

¹Potter, S. Lifemanship. Henry Holt & Co., New York, 1950.

²Potter, S. Gamesmanship. Henry Holt & Co., New York, 1950.

³Osler, Sir William., Aequanimitas with Other Addresses. Blakeson, Phila., 1943.

UNIVERSITY OF MINNESOTA MEDICAL SCHOOL
WEEKLY CALENDAR OF EVENTS

Physicians Welcome

April 20 - 25, 1953

Monday, April 20

Medical School and University Hospitals

- 9:00 - 9:50 Roentgenology-Medicine Conference; L. G. Rigler, C. J. Watson and Staff; Todd Amphitheater, U. H.
- 9:00 - 10:50 Obstetrics and Gynecology Conference; J. L. McKelvey and Staff; W-612, U. H.
- 10:00 - 12:00 Neurology Rounds; A. B. Baker and Staff; Station 50, U. H.
- 11:30 - Tumor Conference; Doctors Kremen, Moore, and Stenstrom; Todd Amphitheater, U. H.
- 11:30 - 12:30 Physical Medicine Seminar; Evaluation of Kinesiology of Occupational Therapy; Ruby Overmann; 132 Chemical Engineering Bldg.
- 12:15 - Obstetrics and Gynecology Journal Club; Staff Dining Room, U. H.
- 12:30 - 1:30 Physiology Seminar; Attempt to Quantitate Effects of the Metabolic Inhibitor in Vivo; Nathan Lifson; 214 Millard Hall.
- 12:30 - Physiological Chemistry Seminar; 214 Millard Hall.
- 1:30 - 2:30 Pediatric-Neurological Rounds; R. Jensen, A. B. Baker and Staff; U. H.
- 4:00 - Pediatric Seminar; Pneumoencephalography; Stanley E. Crawford; Sixth Floor West, U. H.
- 4:30 - ECG Reading Conference; James C. Dahl, et al; Staff Room, Heart Hospital.
- 4:30 - Public Health Seminar; 15 Owre Hall.
- 4:30 - 6:00 Physiology 114A and Cancer Biology 140 -- Research Conference on Cancer, Nutrition, and Endocrinology; Drs. Visscher, Bittner, and King; 129 Millard Hall.
- 5:00 - 6:00 Urology-Roentgenology Conference; C. D. Creevy, O. J. Bagganstoss, and Staff; Eustis Amphitheater.

Ancker Hospital

- 8:30 - 10:00 Tuberculosis and Chest Conference; Auditorium.
- 2:00 - 3:00 Surgery Journal Club; Classroom.

Minneapolis General Hospital

- 9:30 - Pediatric Rounds; Eldon Berglund; Newborn Nursery, Station C.
- 10:30 - 12:00 Tuberculosis and Contagion Rounds; Thomas Lowry; Station M.
- 11:00 - Pediatric Rounds; Erling Platou; Station K.
- 12:30 - Surgery Grand Rounds; Dr. Zierold; Sta. A.

Monday, April 20 (Cont.)

Minneapolis General Hospital (Cont.)

- 1:00 - X-ray Conference; Classroom, 4th Floor.
2:00 - Pediatric Rounds; Robert A. Ulstrom; Stations I and J.

Veterans Administration Hospital

- 11:30 - X-ray Conference; J. Jorgens; Conference Room, Bldg. I.
1:30 - Cardiac Rounds; Drs. Ebert and Berman, and Richards.
4:00 - ECG Conference; Drs. Ebert, Berman, and Simonson.

Tuesday, April 21

Medical School and University Hospitals

- 9:00 - 9:50 Roentgenology-Pediatric Conference; L. G. Rigler, I. McQuarrie and Staff; Eustis Amphitheater, U. H.
9:00 - 12:00 Cardiovascular Rounds; Station 30, U. H.
12:30 - 1:20 Pathology Conference; Autopsies; J. R. Dawson and Staff; 102 I. A.
12:30 - 1:30 Physiology 114D -- Current Literature Seminar; 129 Millard Hall.
4:00 - 5:00 Pediatric Rounds on Wards; I. McQuarrie and Staff; U. H.
4:30 - 5:30 Clinical-Medical-Pathological Conference; Todd Amphitheater, U. H.
4:30 - ECG Reading Conference; James C. Dahl, et al; Staff Room, Heart Hospital.
5:00 - 6:00 X-ray Conference; Presentation of Cases by Veterans Hospital Staff; Eustis Amphitheater, U. H.
* 8:00 - Minnesota Pathological Society Meeting; Dietary Liver Damage in Africans; Dr. John F. Brock, Professor of Medicine, University of Cape Town, South Africa; Owre Amphitheater.

Ancker Hospital

- 9:00 - 10:00 Medical X-ray Conference; Auditorium.

Minneapolis General Hospital

- 10:00 - Pediatric Rounds; Spencer F. Brown; Stations I and J.
10:30 - 12:00 Medicine Rounds; Thomas Lowry and Staff; Station F.
12:30 - Grand Rounds; Fractures; Willard White, et al; Sta. A.
12:30 - Neurorontgenology Conference; O. Lipschultz, J. C. Michael and Staff.
12:30 - EKG Conference; Boyd Thomas and Staff; 302 Harrington Hall.
1:00 - Tumor Clinic; Drs. Eder, Cal, and Lipschultz.
1:00 - Neurology Grand Rounds; J. C. Michael and Staff.

Veterans Administration Hospital

- 7:30 - Anesthesiology Conference; Conference Room, Bldg. I.

Tuesday, April 21 (Cont.)

Veterans Administration Hospital (Cont.)

8:45 - Surgery Journal Club; Conference Room, Bldg. I.
9:30 - Infectious Disease Rounds; Drs. Hall and Zinneman.
9:30 - Surgery-Pathology Conference; Conference Room, Bldg. I.
10:30 - Surgery-Tumor Conference; L. J. Hay, J. Jorgens; Conference Room, Bldg. I.
1:00 - Review of Pathology, Pulmonary Tuberculosis; Conference Room, Bldg. I.
1:30 - Combined Medical-Surgical Chest Conference; Conference Room, Bldg. I.
2:00 - 2:50 Dermatology and Syphilology Conference; H. E. Michelson and Staff; Bldg. III.

Wednesday, April 22

Medical School and University Hospitals

8:00 - 9:00 Roentgenology-Surgical-Pathological Conference; Paul Lober and L. G. Rigler; Todd Amphitheater, U. H.
11:00 - 12:00 Pathology-Medicine-Surgery Conference; Surgery Case; O. H. Wangensteen, C. J. Watson and Staffs; Todd Amphitheater, U. H.
12:30 - 1:20 Radio-Isotope Seminar; 12 Owre Hall.
1:30 - 3:00 Physiology 114B -- Circulatory and Renal System Problems Seminar; Dr. M. B. Visscher, et al; 214 Millard Hall.
4:00 - 5:30 Physiology 114C -- Permeability and Metabolism Seminar; Nathan Lifson; 214 Millard Hall.
4:30 - ECG Reading Conference; James C. Dahl, et al; Staff Room, Heart Hospital.
5:00 - 5:50 Urology-Pathological Conference; C. D. Creevy and Staff; Eustis Amphitheater.
8:00 - 10:00 Dermatological-Pathology Conference; Review of Histopathology Section; R. Goltz; Todd Amphitheater, U. H.

Ancker Hospital

8:30 - 9:30 Clinico-Pathological Conference; Auditorium.
12:30 - 1:30 Medical Journal Club; Library.

Minneapolis General Hospital

8:30 - 9:30 Grand Rounds; William P. Sadler and Staff; Sta. C.
9:30 - Pediatric Rounds; Max Seham; Stations I and J.
10:30 - 12:00 Medicine Rounds; Thomas Lowry and Staff; Station D.
11:00 - Pediatric Seminar; Arnold Anderson; Classroom, Station I.
11:00 - Pediatric Rounds; Erling S. Platou; Station K.

Wednesday, April 22 (Cont.)

Minneapolis General Hospital (Cont.)

- 12:15 - Pediatrics Staff Meeting; Classroom, Station I.
1:30 - Visiting Pediatric Staff Case Presentation; Station I. Classroom.

Veterans Administration Hospital

- 8:30 - 10:00 Orthopedic X-ray Conference; E. T. Evans and Staff; Conference Room; Bldg. I.
8:30 - 12:00 Neurology Rehabilitation and Case Conference; A. B. Baker,
9:00 - Gastro-Intestinal Rounds; Drs. Wilson, Nesbitt, Zieve, Hay and Goodnow.
2:00 - 4:00 Infectious Disease Rounds; Main Conference Room, Bldg. I.
4:00 - 5:00 Infectious Disease Conference; Wesley W. Spink; Conference Room, Bldg. I.
7:00 p.m. Lectures in Basic Science of Orthopedics; Conference Room, Bldg. I.

Thursday, April 23

Medical School and University Hospitals

- 8:00 - 9:00 Vascular Rounds; Davitt Felder and Staff Members from the Departments of Medicine, Surgery, Physical Medicine, and Dermatology; Heart Hospital Amphitheater.
9:00 - 11:50 Medicine Ward Rounds; C. J. Watson and Staff; E-221, U. H.
11:00 - 12:00 Cancer Clinic; K. Stenstrom and A. Kremen; Todd Amphitheater, U. H.
1:30 - 4:00 Cardiology X-ray Conference; Heart Hospital Theatre.
4:00 - 5:00 Physiology-Surgery Conference; Todd Amphitheater, U. H.
4:30 - 5:20 Ophthalmology Ward Rounds; Erling W. Hansen and Staff; E-534, U. H.
4:30 - ECG Reading Conference; James C. Dahl, et al; Staff Room, Heart Hospital.
5:00 - 6:00 Radiology Seminar; Pulmonary Osteoarthropathy; S. H. Calin; Eustis Amphitheater.
7:30 - 9:30 Pediatric Cardiology Conference and Journal Club; Review of Current Literature 1st hour and Review of Patients 2nd hour; 206 Temporary West Hospital.

Ancker Hospital

- 8:00 - 10:00 Medical Grand Rounds; Auditorium.

Minneapolis General Hospital

- 9:30 - Neurology Rounds; Heinz Bruhl; Station I.
10:00 - Pediatric Rounds; Spencer F. Brown; Station K.
10:00 - Psychiatry Grand Rounds; J. C. Michael and Staff; Sta. H.
11:30 - 12:30 Clinical Pathological Conference; John I. Coe; Classroom.

Thursday, April 23 (Cont.)

Minneapolis General Hospital (Cont.)

- 1:00 - Fracture - X-ray Conference; Dr. Zierold; Classroom.
1:00 - House Staff Conference; Station I.
2:00 - 4:00 Infectious Disease Rounds; Classroom.
4:00 - 5:00 Infectious Disease Conference; Wesley W. Spink; Classroom.

Veterans Administration Hospital

- 8:00 - Surgery Grand Rounds; Conference Room, Bldg. I.
8:00 - Surgery Ward Rounds; Lyle Hay and Staff; Ward 11.
11:00 - Surgery-Roentgen Conference; J. Jorgens; Conference Room, Bldg. I.
1:00 - Metabolic Disease Conference; Drs. Flink, Heller, and Jacobson.

Friday, April 24

Medical School and University Hospitals

- 8:00 - 10:00 Neurology Grand Rounds; A. B. Baker and Staff; Station 50, U. H.
9:00 - 9:50 Medicine Grand Rounds; C. J. Watson and Staff; Todd Amphitheater, U. H.
10:30 - 11:50 Medicine Rounds; C. J. Watson and Staff; Todd Amphitheater, U. H.
10:30 - 1:50 Otolaryngology Case Studies; L. R. Boies and Staff; Out-Patient Department, U. H.
11:45 - 12:50 University of Minnesota Hospitals Staff Meeting; Spontaneous Pneumothorax; J. Arthur Meyers; Powell Hall Amphitheater.
1:00 - 2:50 Neurosurgery-Roentgenology Conference; W. T. Peyton, Harold O. Peterson and Staff; Todd Amphitheater, U. H.
3:00 - 4:00 Neuropathological Conference; F. Tichy; Todd Amphitheater, U. H.
4:00 - 5:00 Physiology 124 -- Seminar in Neurophysiology; Ernst Gelhorn; 113 Owre Hall.
4:30 - ECG Reading Conference; James C. Dahl, et al; Staff Room, Heart Hospital.
5:00 - Urology Seminar and X-ray Conference; Eustis Amphitheater, U. H.

Ancker Hospital

- 1:00 - 3:00 Pathology-Surgery Conference; Auditorium.

Minneapolis General Hospital

- 9:30 - Pediatric Rounds; Wallace Lueck; Station J.
10:30 - Pediatric Surgery Conference; Oswald Wyatt; Tague Chisholm; Station I, Classroom.
12:00 - Surgery-Pathology Conference; Dr. Zierold, Dr. Coe; Classroom.
1:00 - 3:00 Clinical Medical Conference; Thomas Lowry; Classroom, Station M.

Friday, April 24 (Cont.)

Minneapolis General Hospital (Cont.)

- 1:15 - X-ray Conference; Oscar Lipschultz; Classroom, Main Bldg.
2:00 - Pediatric Rounds; Robert Ulstrom; Stations I and J.

Veterans Administration Hospital

- 10:30 - 11:20 Medicine Grand Rounds; Conference Room, Bldg. I.
1:00 - Chest-Follow-Up Conference; E. T. Bell; Conference Room, Bldg. I.
2:00 - Autopsy Conference; E. T. Bell and Donald Gleason; Conference Room, Bldg. I.

Saturday, April 25

Medical School and University Hospitals

- 7:45 - 8:50 Orthopedic X-ray Conference; W. H. Cole and Staff; M-109, U. H.
9:00 - 10:00 Infertility Conference; Louis L. Friedman, David I. Seibel, and Obstetrics Staff; Eustis Amphitheater, U. H.
9:00 - 10:30 Pediatric Grand Rounds; I. McQuarrie and Staff; Eustis Amphitheater.
9:00 - 11:50 Medicine Ward Rounds; C. J. Watson and Staff; Heart Hospital Amphitheater.
9:15 - 10:00 Surgery-Roentgenology Conference; L. G. Rigler, J. Friedman, Owen H. Wangensteen and Staff; Todd Amphitheater, U. H.
10:00 - 11:30 Surgery Conference; Todd Amphitheater, U. H.
10:00 - 12:50 Obstetrics and Gynecology Grand Rounds; J. L. McKelvey and Staff; Station 44, U. H.
11:30 - Anatomy Seminar; Dye Elimination as a Criterion of Liver Function; Joseph Eusterman; 226 Institute of Anatomy.

Ancker Hospital

- 8:30 - 9:30 Surgery Conference; Auditorium.

Minneapolis General Hospital

- 8:00 - Urology Staff Conference; T. H. Sweetser; Main Classroom.
11:00 - 12:00 Medical - X-ray Conference; O. Lipschultz, Thomas Lowry, and Staff; Main Classroom.

Veterans Administration Hospital

- 8:00 - Proctology Rounds; W. C. Bernstein and Staff; Bldg. III.
8:30 - 11:15 Hematology Rounds; Drs. Goldish and Bolin.
11:15 - 12:00 Morphology Dr. Aufderheide, Conference Room.

* Indicates special meeting. All other meetings occur regularly each week at the same time on the same day. Meeting place may vary from week to week for some conferences.