VOL. II THURSDAY, JANUARY 8, 1931 NO. 14

GENERAL STAFF MEETING
UNIVERSITY HOSPITALS

CONTENTS

ANNOUNCEMENTS

1. New Appointments: Redding Rufe, Philadelphia, Pennsylvania. Central high school, Philadelphia. Pre-medicine - Pennsylvania State College, B.S. Medicine - University of Minnesota, M.B., M. D. Graduate work in physiological chemistry. Internship University Hospital. Appointment - assistant in Medical Technology (half time).

Osmer Samuel Randall, Fort Worth, Texas. Fort Worth high school Pre-medicine - Texas University. Missouri University, A.B. Medicine - John Hopkins University, M.D. Internship - John Hopkins University. Graduate work - resident in surgery, Oklahoma University Hospital, resident in surgery, Kansas University. Assistant in Pathology Kansas University. Appointment: assistant in Pathology.

Bjarne Pearson, Pelican Rapids, Minnesota. Pelican Rapids high school. Pre-medicine - St. Olaf College. Medicine - University of Minnesota, B.S., M.B., M.D. Internship - Minneapolis General Hospital. Appointment: Assistant in Pathology.

Rudolph Engel, Bonn, Germany. University of Bonn, University of Munich, M. D. University of Berlin - assistant. Appointment: Research assistant in Pediatrics.

Theodore Q. Benson, Michigan, N. Dakota, Michigan High School. North Dakota Agricultural College, Ph. G. Pre-medicine - University of Minnesota. Medicine - University of Minnesota, B.S., M.B., M.D. Internship - University Hospital. Appointment: Fellow in Medicine (male) to replace Einar Blegen, who goes to Boston to continue studies before returning to Norway.

Hursel Manaugh, Madison, Indiana. Hanover, Indiana high school. Pre-medicine - Hanover College, B. A. Medicine - University of Minnesota, M.B., M.D. Internship - Minneapolis General Hospital. Appointment: Fellow in Pediatrics.

Horace Scott, Minneapolis Central high school. Pre-medicine- University of Minnesota. Medicine - University of Minnesota, B.S., M.B., M. D. Internship - Presbyterian Hospital, Chicago. M.S. (to be granted) Northwestern University. Appointment: Fellow in Surgery. Assignment - to experimental laboratory.

Replacements: Earl C. Henrikson, Lindstrom, Minnesota. Chisago Lake high school. Pre-medicine - University of Minnesota. Medicine - University of Minnesota, B.A., B.S., Rush Medical College, M.D. Internship - St. Luke's Hospital, Chicago. Fellowship in Surgery July 1st, Minneapolis General Hospital. Transferred to University Hospital to replace Dr. Charles Mead, who goes to the Minneapolis General Hospital.

Harold J. Dvorak, Milwaukee, Wisconsin. West Division high school. Pre-medicine - Wisconsin University, B.S. Medicine - Wisconsin and Pennsylvania, M.D., M.S. Marquette University - chemistry. Fellow in Surgery. Assigned to Cancer Surgery, to replace Carl Rice who goes to Mayo Clinic.

New Appointments: Harold E. Roe, Pomona, California. Pomona high school. Pre-medicine - University of California, A.B. Medicine - University of Minnesota, B.S., M.B., M.D. Graduate work - Anatomy, M.S., Ph.D. Intern assigned to Orthopedic Surgery.

Herman E. Hilleboe, Minneapolis, Minnesota. East high school. Pre-medicine - University of Minnesota. Medicine - University of Minnesota, B.S., M.D. Appointment: Assigned to Dispensary and Diabetes.

New Appointments: Floyd A. Thompson, St. Paul, Minnesota. St. Paul Central high school. Pre-medicine - University of Minnesota. Medicine- University of Minnesota, B.S., M.B., March 1931. Appointment: Intern assigned to Health Service.

Bernice Figenshau, Miles City, Montana. Fletcher County high school. Pre-medicine - Carlton College and University of Minnesota, B.S. Medicine- University of Minnesota, M.B., March 1931. Appointment: Intern - Assigned to Glen Lake.

Emmet Kehoe, Minneapolis, Minnesota. John Marshall high school. Pre-medicine - University of Minnesota, B.S. Medicine - University of Minnesota, M. B. March 1931. Appointment: Intern - assigned to Cancer Surgery.

ATTENTION: You are now full-fledged members of the staff of the University Hospitals with all its rights and privileges. Our purpose is the care of the sick, education and research. Our primary concern is to give to each patient the best possible care within our power, to help one another by the knowledge we acquire, to consider each patient a problem demanding solution. Careful, unbiased observation, faithfully and painstakingly recorded is the basis of all investigation. You will also have the opportunity to acquire practical experience in the Art of Medicine. Your ability to bring comfort to others, to influence them to allow you to follow out accepted lines of treatment, and if necessary to give you permission to examine the bodies of their dead, is your mark of success. We place a very high value on our association with this organization and expect you to do the same. You are more than welcome, because we feel that our greatest heritage is well-trained, scientific, conscientious men and women.

2. Summary of Number of Deaths, Autopsies, Percentage, July 1, 1930 to Dec.31,1930

Month	Deaths	Autopsies	%
July - 1930	30	27	90
August	33	24	73
September	31	21	68
October	32	27	84
November	21	20	95
December	39	27	70
	186	146	78.5

3. Summary of Number and Percentage of Autopsies July 1, 1925 to Dec. 31, 1930.

Year	Number	%	Year	Number	%
1925-26	83	53.2	1928-29	175	69.6
1926-27	157	61.6	1929-30	229	74.3
1927-28	152	64.7	1930-30 (Half)	146	78.5

4. Seminar

In medicine every Wednesday at 4:45 P.M. in the Eustis Assembly Room in the University Hospital you are cordially invited to be present. Dept. of Medicine.

5. Seminar

Tumor by Karl Stenstrom and Cyrus Hanson on Hodgkin's Disease, Friday, January 9th, 11 A.M. in Todd Amphitheatre. You are cordially invited to be present. Dept. of Surgery.

6. **Radio**

Program for January, 1931. January 7th - Carbon monoxide poisoning. **14th - Peanut bronchitis;** 21st, Cause of common colds; 28th, Cancer of breast. **Station WCCO. Time:** Wednesday, 11:15 A.M. Suggestions will be appreciated.

7. **Time: Of staff meeting** 12:30 to 1:30. Luncheon served from 12:00 to 1:00

8. MORTALITY REPORT, DECEMBER 1930

	Age	Sex	Post
Broncho-pneumonia	2 mo.	F	X
Broncho-pneumonia, empyema, peritonitis	5	M	X
Carcinoma, cervix	60	F	0
Carcinoma, cervix, diabetes mellitus	45	F	0
Carcinoma, cervix	37	F	X
Carcinoma, cervix	54	F	0
Carcinoma, cheek (left)	82	M	0
Carcinoma, Corpus uteri	34	F	0
Carcinoma, pancreas	55	M	X
Carcinoma, pancreas	44	M	X
Dementia paralytica	43	M	X
Diabetes mellitus	65	M	0
Diabetes mellitus	71	F	X
Diabetes mellitus	70	F	X
Glioma, right temporal lobe	54	M	X
Glioma, frontal lobe	46	M	X
Hemangiomata of brain	36	M	X
Hydrocephalus, spina bifida	36 Hrs.	F	X
Hypernephroma	51	M	X
Hypertension	72	M	X
Hypertension	51	F	0
Hypertension	55	F	X
Hypertension	54	F	0
Lacerated pelvic floor, old; postoperative ileus	52	F	X
Leukemia, chronic lymphatic	46	M	0
Leukemia, acute myelogenous	14	M	0
Mitral stenosis	47	F	X
Otitis media, brain abscess	28	M	X
Pemphigus vulgaris	70	F	X
Pneumonia, lobar, empyema	21	M	X
Pyelcystitis, acute, during pregnancy, toxic psychosis	22	F	X
Rheumatic disease, chronic, congenital heart	13	F	0
Stillborn	0	M	0
Stillborn	0	M	X
Stillborn	0	M	X
Suicide	55	F	X
Thrombosis and gangrene of leg	67	M	X
Tuberculous spine, pulmonary tuberculosis	36	F	X
Ventral hernia	60	F	X

Total deaths ---------- 39
Postmortem ---------- 27
Percentage ---------- 70%

II INSTRUCTIONS FOR CONSTIPATION
Macnider Wetherby

Chronic constipation is in most cases entirely unnecessary.

The seat of constipation is the large bowel, which represents about the last five feet of the intestinal tract. Many symptoms may develop as a result of improper functioning of this tract. The abuse of cathartics, enemas, and irritating foods are often responsible for aggravating trouble there.

Stools

Most individuals should have one or two normal stools per day. A normal stool is about the size and consistency of a small peeled banana. Constipated stools are usually hard and dry and may be ball-like or pencil-like in shape. An effort should be made to have a bowel movement at a regular time each day.

Cathartics and Enemas

No medicine of any kind is to be taken for bowel movements.

No large enemas are to be used. (1-2 quarts).

Diet in Constipation

The use of the proper fruits and vegetables in sufficient amount is the most important factor in treating constipation.

Fruit is to be taken three times daily, cooked fruits are usually preferable to fresh fruits. Some of the best are: prunes, apricots, baked apple, apple sauce, rhubarb, pear and peach sauce.

Vegetables - GREEN COOKED VEGETABLES are to be taken in liberal amounts for both the noon and night meal. Their chief value is that they contain bulk food which will pass into the large bowel and furnish material for bowel movements. Some of the best green cooked vegetables are: spinach, string beans, beets, carrots, greens, squash, peas, asparagus and cauliflower. Cabbage is often undesirable and should not be used in most instances. The fruits and vegetables are the foods which largely regulate the bowel movements and should be taken in the required amounts. This will vary for different individuals. The amount of fruit must not be in excess with too few vegetables. The test of sufficient bulk is whether or not the individual is having daily normal stools. If too much bulk the stools will be loose which calls for a cut in the amount of fruit being taken.

FOODS TO AVOID

Bran is an objectionable food as it is too coarse for most human beings. It is usually advisable to avoid ice cold drinks, and sweets.

Other foods may be taken much as desired, the important factor being a sufficient amount of bulk food in the form of cooked fruits and cooked vegetables.

Early in the treatment of constipation there may be difficulty having normal stools. If no bowel movement has been had for two days it is advisable to inject two or three ounces of olive oil or salad oil into the rectum at bedtime and leave in overnight. If no bowel movement has been had by the next morning a 1 pint clear water enema may be used.

CASE I. PULMONARY TUBERCULOSIS, POTT'S DISEASE, SECONDARY INFECTION.

The case is that of a white female housewife 37 years old, admitted to the University Hospital 12-10-30 and died 12-25-30 (15 days).
1910 - Sister died of tuberculosis. No other contact.
1926 - Patient was told that she had pulmonary tuberculosis. Was given bed rest at home. Recently informed that pulmonary lesion was now quiescent.
1928 - Developed slight backache. Pain noted when she rolled over in bed. Made temporarily worse on arising, and then relieved. This lasted about 6 months when she went to a physician? and then a chiropractor for treatment. She was under his care from 4-6 months without getting any results.
1929 - Noticed spinal deformity of thoracic region. Dull, aching lumbar pain persisted.
1930 -(September) X-ray of spine revealed tuberculosis of thoracic vertebrae (note- X-ray taken 20 months after onset of illness and 14 months after first seeking medical aid). Advised to go to bed.
1930 -(December 10th) Entered University Hospital. Chief complaint; backache, spinal deformity, hoarseness of unstated duration. Said to be caused by cold. No weakness, night sweats, cough , expectoration, blood in sputum or pleurisy. Gained 10# on bed rest.

Physical examination: No generalized statement. Chest - harsh breath sounds, rales after cough (two out of three observers), decreased resonance in both apices, lagging left apical region, increased whispered voice on both sides, slight right inguinal adenopathy. Spine shows scoliosis to left of 11th vertebra. Larynx (consultation) True vocal cords normal, false cords injected, interarytenoid area, injected, red, elevated mass fading into surrounding tissue. Impression: tuberculous laryngitis. Neurological (consultation) after operation. Additional history: occasional shooting pain followed by weakness in right leg for one year. Also urgency of urination at times. Knee jerks not obtained, Babinski questionably positive on left, no essential changes.

Laboratory: Urine - many WBcs. Hemoglobin 88%, WBcs 6450, P 72, L 28, group II.

X-ray: 12-11-30 Right diaphragmatic adhesions, fibroid tuberculosis of apices to 2nd rib, peripheral infiltration left side 2nd to 3rd ribs, old tuberculosis 12th thoracic and 1st lumbar vertebrae, obliteration of discs, and slight kyphosis, few bony spicules in soft tissues, large psoas abscess on right, small beginning on left. Conclusions: moderately advanced pulmonary tuberculosis, Pott's disease, right psoas abscess.

12-15-30 Operation done for spinal fusion, removing piece of bone from left tibia. No difficulty encountered. Postoperative response fairly satisfactory except that patient lost a considerable amount of blood. Noted urinary frequency, fairly comfortable, given morphine sulphate, gr. 1/6 four times.

12-16-30 Temperature which had varied from 98/2-99.6 rose sharply to 102.8. Pulse from 90 to 140. Respirations became rapid,

12-17-30 pain in left knee, frequent loose stools, slept poorly, morphine sulphate gr. 1/6 three times. Neck is very stiff. Temperature 100.8 to 103, pulse 120-130.

12-18-30 temperature 101.6-102.6, pulse 120-145. Urine - Sp. G. 1022, few WBcs.

12-19-30 Amytol, oxygen started, very uncomfortable outside of tent. Pains in legs and feet. Temperature 101-103, pulse 115-135, Urine - few WBcs, rales in lung bases.

12-20-30 Pyramidon and luminal, oxygen continued, pain in left leg. X-ray of chest showed possible beginning pneumonia in left base. Urine negative. Temperature 103-103-2, pulse 105-160.

12-21-30 Restless, involuntary, oxygen continued, pain in left leg, still complains of pain and stiffness in neck. Temperature 100.2-102.8, pulse 105-130.

12-22-30 About the same, no relief from medication, restless, irritable. Temperature 100.2-102, pulse 105-125.

12-23-30 Wound broken down, drainage suggests rupture of abscess in paravertebral region. Streptococci found in pus, abdominal distention and pain, leg wound shows pus, Dakin's irrigation. Temperature 101-102.6, pulse 96-140.

12-24-30 Wounds draining freely, hypodermoclysis started, adrenalin, morphine sulphate. Redness and swelling, right ankle, condition serious, blood transfusion given because of medical shock, temperature 99.6-105, pulse 90-168.

12-25-30 Grew progressively worse. Exitus occurred at 6:45 A. M.

Diagnoses

1. Tuberculosis of vertebrae
2. Fusion operation
3. Graft wound of left leg
4. Old fibroid tuberculosis (apicies)
5. Tuberculous laryngitis (clinical)
6. Right psoas abscess
7. Recent cellulitis of graft wound
8. Recent infection of fusion wound and dissecting abscesses of subcutaneous and intermuscular tissues of back.
9. Edema of neck.
10. Cloudy swelling of heart, liver and kidneys.
11. Adhesions of appendix and pleura.
12. Splanchnic congestion.
13. Superficial abrasions and puncture wounds.

CASE II TOXIC PSYCHOSIS (PREGNANCY) ACUTE PYELOCYSTITIS.

The case is that of a white female 25 years of age, para I, gravida II, admitted to the University Hospital 12-2-30 and died 12-29-30.(27 days). Admitted in a very stuporous condition and sent up on the obstetrical service. Pregnancy estimated about 4-1/2 months.

July 27, 1930. Last menstrual period. Went to a physician who said that she was not pregnant, and gave her medicine to bring on the flow.

October 5, 1930. Began to vomit after every meal, hematemesis at times. Taken to the Swedish hospital October 7, 1930 where she had frequent nosebleed. Discharged after 2 weeks free from symptoms. Felt well for 2 weeks.

November 8, 1930 began to complain of diplopia and her husband thought she appeared slightly deaf.

November 10, 1930 husband states that her face was slightly drawn, that she was depressed.

Case II -(Cont.)

November 23, 1930 became forgetful. The following day, 24th, she became very drowsy and only stayed awake long enough to drink. Lasted about 2 days (to 11-26-30)

November 27, 1930 apathy changed to hilarity; acted in a silly manner, was unusually talkative and very restless. During the night she called out for help and had delusions (?) that people were walking over her. A physician was called who gave her a sedative, memory became progressively worse after this. She did not remember that her husbandwas working nights.Remembered past events better than recent; recognized relatives and friends.

November 28, 1930 she had incontinence of urine and feces which was probably subjective as she did not notice that she had dirtied the linen.

November 30, 1930. Husband noticed that her abdomen began to enlarge. This was described as a sudden marked globular swelling over the lower portion.

December 2, 1930. Admitted to University Hospital complaining of 1. forgetfulness, 2. incontinence of urine and feces, 3. pregnancy, 4. enlargement of the lower abdomen.

Past history: said to have been well up to one year ago. Acne, duration unknown. Normal pregnancy in 1926. Labor was long and hard, and forceps were used; baby weighed 9-3/4#. Puerperium normal.

Family and marital history: negative.

Physical examination: fairly well developed and nourished white female, age 25, who appears quite drowsy, but cooperates well when awakened. Her skin has a rather muddy appearance. Slight tenderness over the right maxillary sinus. Bilateral and vertical nystagmus. No exophthalmos; no lid lag, thyroid palpable but not enlarged. Pharynx injected; tonsils present. Chest clear. Heart rate 110, B.P. 115/70, apex beat in the 4th-5th interspace just outside of the midclavicular line. Uterus extends 3 fingers below the umbilicus, globular in shape, quite form. The cervix is soft and patulous; bilateral laceration.
Neurological examination (consultation) showed bilateral and vertical nystagmus; fundi are negative. Cranial nerves are negative; visual field normal; both knee jerks and left ankle jerks minus 4. Right ankle jerk normal. Knees buckle under her on standing. No other signs of psychosis except confusion. Opinion: may be functional; if organic is probably frontal.
X-ray Chest negative. Skull negative. No evidence of increased intracranial pressure.
Laboratory: 2600 cc. urine per catheter, cloudy, 1018, 2-3 WBcs. Hemoglobin 63%, RBcs 2,770,000, Wbcs 6,500. Pmns 82%, L 18%. Spinal fluid:130 mm. pressure on puncture,240 mm. on jugular pressure. Wasserman negative. (State Board). No cells. Colloidal goldnegative; Nonne and Nogouchi negative. Temperature 99.2, pulse 110.

Progress notes: 12-2-30 admitted. Speaks incoherently. Mercurochrome 1% instilled intothe bladder. Incontinent. Temperature 99.2, pulse 110.
12-3-30 - catheterized 900 cc. in the A.M. 300 cc. P.M. mercurochrome instilled. Mind confused; talks incoherently, takes fluids poorly, colonic flush, temperature 99, pulse114. Mineral oil 1 oz. t.i.d.
12-4-30-12-11-30 catheterized daily, talks incoherently, is extermely drowsy at times. Incontinent. Temperature to 99, pulse 100-104, respirations normal. Urine 12-5-30 clear 1017, 4-5 pus cells, 2 plus albumin.
12-11-30 pulse from 80-120, temperature to 99.2. Basal metabolic rate plus 6%, mentalcondition about the same.
12-14-30 pulse 106-110, temperature to 99; still involuntary, general condition

about the same.
12-17-30 gastric expression with histamine done; free Hcl, 1st hour, 2nd 54, 3rd 48, total 1st 22, 2nd 69, 3rd 62. WBcs 10,750. Pulse 86-120, temperature 99.4. Mental condition about the same, still incontinent.
12-18-30 B.M.R. -6%, pulse 120, temperature normal, mental condition about the same.
12-19-30 Acriflavine, 1 gram intravenously, patient seemed weaker, is disorientated as to time and place.
12-21-30 Acraflavine 3/4th gram intravenously. Pulse 90-11-. Quite stuporous, incontinent, mental condition muchworse. Neurological note at this date shows that the patient is definitely more toxic. No change from admission findings except papi papillitis (?) of left disc. Mental confusion about the same. Consultation notes by the obstetrical department; the fundus is 3 fingers below the umbilicus, there was also a peculiar condition of the skin confined to the abdomen and akin to atrophy. Uterus enlarged and softened; Baxton-Hicks contractions palpable; bladder is full and projects below the symphysis into the vagina; no evidence of resorption of fetus could be made out as the temperature is normal and the uterus is of normal size for this period of gestation.
12-22-30 Neurological note shows change for the worse as contrasted to previous 24 hours. Mental symptoms about the same. Patient seems to have some toxic absorption. B.U.N. 100 mgs. Urine full of pus cells, hemoglobin 90%, RBcs 4, 530,000, WBcs 10,700, Pmns 76, L 22. Therapeutic abortion recommended. Catheterized and a few cc. of purulent, blood streaked urine obtained, 1000 cc. saline intravenously with 10% glucose and 1000 Cc. proctoclysis started at 5:30 P.M. Morphine gr. 1/6.
7 P.M. morphine 1/6 gr. atrophine 1/150, Vorhees bag inserted, and 8# of weight added, condition poor.
8:50 P.M. B.P. 82/54, pulse 136,
9:20 P.M. 1000 cc. 5% glucose and saline started. Answers only by moving head, stuporous, B.P. 92/60, pulse 130.
10:15 P.M. Rectal examination shows no progress.
12:45 P.M. 2000 cc. of 9% saline subcutaneously, 7-1/2 gr. sodium benzoate, 10 mm. adrenalin, B.P. 83/60, pulse 126.
12-23-30 Condition poor. Intravenous saline with 5% dextrose. Bladder irrigated 1-10,000 silver nitrate. Seems brighter, pulse 80-148, temperature 99.4-101.8, respirations normal. Hypodermoclysis 2000 cc. intravenous 1000 cc. glucose 5%. No change in the cervix.
12-24-30 Condition better, patient responds to questions. Bladder irrigated with silvernitrate, cervix dilated at 5:30 P.M.
1:37 A.M. 1cc. pituitrin and ergot by hypo.
1:35 A.M. Still born fetus and placenta expelled; blood loss estimated 200 cc.; no laceration. Ergot 1 drm. every 2 hours x 5. Seems very drowsy in P.M. Pulse from 130-190, temperature 98.6-101.4. Respirations normal.
12-25-30 Seems more stuporous, silver nitrate bladder irrigation, hypodermoclysis 12 noon. Intravenous 10% glucose, 1000 cc. at 11 P.M. Progressively more stuporous, pulse from 100-148., temperature 99.4-100.8, respirations normal, incontinent.
12-26-30 Bladder silver nitrate irrigation - stuporous, does not respond, involuntary , 1000 cc. proctoclysis, pulse 105-136, temperature 99.8, respirations normal.
12-27-30 Seen by Urology dept. who state that the cause of fever, urinary retention, pyuria, tenderness and spasm over both kidneys and uremia consider this as probably a hydronephrosis and a pyelonephritis of pregnancy with secondary renal insufficiency. Suggested urethral catheters, intravenous fluids and lavage. Cystoscopic examination revealed a bladder full of thick brown foul smelling purulent urine, containing large flakes of fibrin and pus. There is a bulleus edema, grade III at the base of the bladder, and thick flakes and masses of exudate adherent to the bladder mucosa throughout its entirety. Considerable quantity of thick, brown, foul-smelling, purulent urine obtained from each ureter, suggests extremely advanced state of bilateral pyelonephritis, possibly secondary to a

hydronephrosis of pregnancy. Prognosis is grave. Intravenous glucose 1500 cc. 10% given and 1/2 hourly ureteral lavage, hypodermoclysis. 9 P.M. respirations becoming labored, difficulty in swallowing, pulse 100-140, temperature 99-100, respirations 32.
12-28-30 respirations rapid and labored, progressively weaker, difficulty in swallowing, pulse 130-140, temperature 98.6-102. Gastric lavage c.i.d. 2000 cc. intravenous saline. Hyperventilation, gastric lavage.
12-29-30 Hyperventilation, glucose intravenously, sodium caffeine benzoate, condition grew progressively worse, abdomen very distended, emesis of 400 cc. of reddish fluid. Died at 6:15 A.M.

DIAGNOSIS:

1. Pregnancy (clinical).
2. Subinvolution of uterus.
3. Acute pyelocystitis (pyelonephritis).
4. Cloudy swelling of heart, liver and kidneys.
5. Pulmonary congestion and edema.
6. " emphysema.
7. Probable beginning broncho-pneumonia.
8. Cyst of liver.
9. Marked distention of intestines (gas).
10. Superficial pigmentations of pregnancy.
11. Puncture wounds.
12. Decubitus ulcerations.
13. Superficial hemorrhages.

CASE III. LOBAR PNEUMONIA, EMPYEMA, PULMONARY EMBOLISM

The case is that of a white male farmer 21 years old, admitted to the University Hospitals 12-24-30 and died 12-29-30 (6 days). 12-5-30 at 1:30 P. M. suddenly had severe chill while shredding corn. Worked until 4 P.M. when he became so ill that he quit and went home to bed. The chills were very marked at this time. At 5:30 P.M. they had disappeared and he felt very weak. At 12 midnight he vomited.

12-6-30 developed dry cough in morning. Felt very sick, developed shortness of breath, had fever and sweat profusely. 12-7-30 called a physician who made a diagnosis of lobar pneumonia and gave him serum. At this time he began to expectorate tenacious, rusty sputum (which continued for one week).

12-8-30 developed pain in right chest and severe headaches. Given second injection of serum.

12-13-30 about the 8th day he began to improve, felt better until about 12-15-30 when his appetite again became poor, he felt feverish and sick. Since that time he has felt better and then felt worse until 12-21-30 when his temperature became very high and a physician removed about 2 oz. of pus from the right pleural cavity and advised him to come to the University Hospitals for treatment. Had pneumonia at 5 without complications; whooping cough at 7, mumps at 12, no operations. Family history essentially negative. Habits: does not drink. Complaints by system: teeth in poor condition, occasional sorethroat, appetite always good, fractured femur at age of 7, healed in 7-8 weeks, no deformity. Stopped school at the 8th grade.

General appearance somewhat emaciated. Appeared fairly comfortable, no dyspnea or cyanosis. Head - dental caries, chest - slight lag on right side, increased tactile fremitus on right, flatness right lower chest, increased spoken sounds anteriorly in area below 2nd and above 4th rib. Also increased whispered sounds in

CASE III - (Cont.)

this area. Patient not examined posteriorly. Pulse 95, blood pressure 110/60, heart negative, not enlarged. Abdomen negative. Slight enlargement of the inguinal glands. Tenderness and stiffness in left upper thigh where fracture occurred. Reflexes negative.

Laboratory: Urine negative. Hemoglobin 80%. WBCs 16,000, Pmns 77, L 20, M 3.

X-ray of chest - dense round shadow involving right lower lung field, characteristic of an encapsulated empyema. Suggestion of communication with minor interlobar fissure. Slight amount of mottling extending out from central portion of right hilus which may represent residue of old pneumonia. Conclusion: right encapsulated empyema, slight unresolved pneumonia, right.

Progress notes:
12-24-30 complains of pain in chest and right leg. Somewhat restless. Catheter inserted into cavity, closed drainage started. Irrigated with Dakin's solution. Temperature 97.6 to 100. Pulse 80 to 100. Respirations 20-28.
12-25-30 drainage had stopped; was started again. When irrigating with Dakin's solution felt irritation in throat and coughed a great deal. There probably is a bronchial fistula. The pus is so thick that the drainage is not satisfactory. Saline irrigation started. Complains of gastric distress and refuses food. Suction worked at intervals.
12-26-30 patient now given high caloric diet, saline irrigations very satisfactory. About 700 cc. drainage in bottle, feels much better, suction working well.

12-28-30 suction drainage working very well, complained of dull, aching pain in right leg for past 2 days. Thrombo-phlebitis was diagnosed and light applied.

12-29-30 1000 cc. in drainage bottle. Does not complain - pain in leg much better. At 6 P.M. 12-29-30 cavity was flushed out with saline, patient was cheerful, laughing and talking during care. At 6:15 P. M. complained of pain in groin, and in about 2 minutes stated he was unable to get his breath. Pulse became very weak and thready, cyanosis, labored breathing, twitching of muscles developed. At 6:18 was gasping for breath, face and hands were intensely cyanotic and there was cold, clammy sweat on the skin. Was given oxygen, artificial respiration, caffeine sodium benzoate, metrazol and adrenalin directly into heart muscle. About 6:25 P.M. patient became unable to talk, gasping for breath. Very little result from stimulation. At 6:35 P.M. respirations were slight and at long intervals, exitus occurred at 6:43 P.M. Temperatures - 12-24 T. 97.6-100 P. 80-100, 12-25 T. 100-102, P. 120-140, 12-26 T. 99.4-100.", P. 90-100, 12-27 T. 98.2-100.2, P. 75-90, 12-28 T. 98.6-98.8, P. 85-95, 12-29 T. 98.6-99, P. 90-100.

DIAGNOSIS:

1. Lobar pneumonia.
2. Empyema.
3. Pleural adhesions.
4. Pulmonary congestion and edema.
5. Cloudy swelling of heart, liver and kidneys.
6. Acute splenitis.
7. Pulmonary embolism.
8. Pleural adhesions.
9. Slight dilation of right ventricle.
10. Slight hyaline perihepatitis
11. Flattening of adrenals.
12. Operation wound.
13. Slight abrasion over sacrum.
14. Slight emaciation.

Abstract: - Pulmonary Embolism, a report of seventy-three cases. J. F. McCartney, M.D., (Minneapolis) Arch. of Path. and Lab. Med. Vol 3 (June) 1927, P. 931-937.

General Statement

1. The condition is on the increase.
2. Pulmonary embolism results from detached thrombi in veins or auricles.
3. Usual cause is non-clinical thrombosis, probably due to incomplete occlusion, no periphlebitis, small site.
4. Symptoms usually appear unexpectedly.
5. They may or may not follow sudden or unusual exertion.
6. Symptoms: substernal or precordial pain, dyspnoea, cyanosis or pallor, sweating, anxiety, fear of death, coma or retention of mental faculties.
7. Death may occur suddenly, in a few minutes, several hours or days.
8. Suddenness probably depends on size of embolism.
9. Right auricle and ventricle are usually found distended at autopsy.
10. The embolus is sometimes overlooked at postmortem examination?
11. Emboli may be made up of one large, several small pieces, or a coiled mass which forms a plug.
12. The condition is more frequent in the right lung, and in the right lower lobe.
13. If death is delayed, the embolus may become adherent and be mistaken for a thrombus.
14. Source may not be found.

De Quervain 212 cases - failures 16%; Henderson, E.F. (Mayo) 313 cases - failures 35%; University of Minnesota 73 cases - 39% failures.

15. Time of occurrence after operation usually the end of first week and middle of second week or as late as two or three months.
16. Septic or hemorrhagic infarcts may result.
17. Incidence in autopsy records at Minnesota is 0.84% (8,273 autopsies-73 emboli).
18. The usual sources are the iliac, femoral, pelvic veins and prostatic plexus (83%) (Mayo).
19. It may be twice as common on the left side.
20. In 27% of 106 postoperative cases, the operation was extra-abdominal (Mayo).
21. The theories are (1) slowing of stream (2) injury of endothelium (trauma, infection (67% infected wounds in one series) toxins) (3) change in composition of blood (sedimentation, etc.).
22. The age factor is probably not so important. De Quervain 90% past forty, Henderson, (Mayo) average age 53 years, McCartney, 71 past forty. Percentage for age group shows slight increase in incidence over age of forty although group is very irregular.
23. Sex is apparently not important. Mayo- 151 males, 152 females; Minnesota 40 males, 33 females.

Cause

73 cases.

(1). A. Post traumatic, 15 cases, fracture lower extremities, 8, fracture pelvis 3, fracture of vertebrae 1, knee injury 1, gunshot wound of groin 1, minor injuries 1.

B. Post traumatic (with operation) (8 cases), fracture lower extremity 3, abdominal injury (bowel) 3, decompression (skull) 1, minor abrasions 1.

Pulmonary embolism.

This group is apparently not well known. Thromboses of veins around injury apparently occur which may be sole source or propagating source of embolus. None of the cases were compound fractures, with the possible exception of one.

(2) Post operative (31 cases) Infected wounds 53%. Appendix 6, gynecology 6, gastro-intestinal 4, gallbladder 4, hernia 4, colon and rectum 2, extremities 3, prostate 2.

(3) Post partum (3 cases).

(4) Medical cases (16 cases - 5 out of 6 decompensated hearts, thromboses of right auricle)
Hypertension (failure) 6, nephroma 1, otitis media, mastoid, 1. Carcinoma of lung 1, pulmonary tuberculosis 1, broncho-pneumonia 1, varicose veins 1, dementia paralytica 1, hypertrophy of prostate 1, otitis media (encephalomalasia) 1, cerebral spinal syphilis 1.

Addenda: Autopsies 1-1-10 to 1-1-27 9,275 - pulmonary embolism 73
1-1-27 to 1-5-31 7,004 - " " 93
Totals 16,279 166 Note increase.

(1) A. Post traumatic 37
B. With operation 12 ..... 49 Total.

(2) Postoperative 68

(3) Postpartum 8

(4) Medical 41

Note about 12 cases not included because of difficulty making differential diagnosis between pulmonary embolism and thrombosis.

POST-OPERATIVE EMBOLISM (Organ)

76,799 Cases De Quervain '25					63,573 Cases Wilson '12 (Mayo)			
Cases	No.	%	Organ		Organ	%	No.	Cases
5,879	2	.034	Thyroid	-	Appendix	.04	4	9,908
10,089	10	.10	Appendix	-	Thyroid	.06	2	3,266
11,475	17	.15	Hernia	-	Hernia	.11	5	4,501
2,341	5	.21	Gynecology	-	Kidney	.11	1	900
508	2	.39	Kidney	-	Gynecology	.13	10	7,993
946	8	.84	Gall Bl.	-	G. I.	.13	10	7,591
5,070	54	1.06	G. I.	-	Gall Bl.	.19	9	4,597
356	7	1.99	Prostate	-	Prostate	.66	4	601

OTHERS

De Quervain

Organ	Cases	No.	%
Extremities	7,996	16	0.20
Thorax	1,333	5	0.37

Wilson

Breast	1,346	0	0.00
Mouth	2,281	1	0.05
Stomach-Duodenum	2,391	3	0.12
Blood Vessels	1,372	2	0.14
Colon-rectum	2,530	5	0.20
Small Intestine	389	1	0.26