Thesis for the Degree
of
M. D.

On six consecutive cases of Enteric Fever
-treated with Peroxide of Hydrogen

by
Andrew Philips M.B., C.M., Ed.
Introductory Note: These cases occurred during my residence as House Physician under the Late Sir Benjamin Ward Richardson at the London Temperance Hospital, Hampstead Road, N.W. By the kind permission of the above named gentleman I had the full charge of the said cases under noted subject of course to occasional suggestions of treatment by him.

Observations made during the Peroxide Treatment:

On approaching the bed-side of a patient suffering from erysipelas fever and who is being treated by peroxide of hydrogen one is struck at once by the absence of all signs of soreness on the lips and if the patient be asked to open his mouth, the brown, crested appearance on the tongue, gums and teeth is nowhere visible and its place is taken by what the Late Sir Benjamin used to call the Peroxide tongue i.e. by a white coating as if the organ had been taken out and bleached and which at no part has that dried-up look so common in Syphilis but is everywhere moist and on no occasion, although I have repeatedly asked the patient, was there ever the complaint that the mouth felt uncomfortable and you never that which is so common
in Typhoid viii: the patient picking his lips and tongue with his nails. This, in my opinion, forms a good plea for the use of the drug if not internally at least locally in the shape of the spray used at regular intervals. Its action also stops the growth of Bacteria on the teeth and tonsils and you never get that horrid complication of ulceration and sloughing of the throat.

The patient's appetite improves and Dyspeptic symptoms are very rare during the exhibition of the drug.

I have also noticed that the patient appears to experience a sense of comfort on the taking of the drug and the sensation, I have found by personal experiment, is like that of Saphiret viii: a feeling of warmth in the Abdomen. On this account you find the patient always ready to take the medicine.

One thing which has particularly struck me is the action of this drug on the motions. The stools take on a more formed character and the Diarrhea of Watery becomes much thicker in consistence and in almost every instance is what might be called semi-formed. Another very noticeable feature is the diminution of Stools, the smell of which before the administration of the Peroxide would be very marked, are rendered much less foul-smelling and this point is very important especi-
Abdominal distension is also, I have noted, almost completely abolished. In only one case have I noticed any distension whatever and that did not become at all troublesome. This, I attribute, to the stoppage of fermentation in the bowel. The gurgling in the right side fossa is also reduced, and in many instances abolished.

Peroxide of Hydrogen also makes a capital dressing for Red sores. In this hospital it was generally applied as a fermentation and it is remarkable how rapidly such sores begin to heal, never showing much tendency to spread, but rather to clean up and become healing ulcers. If also the patient is treated in the continuous bath a few ounces of this drug added to it will prevent any sores from becoming contaminate should the stools or urine be passed unconsciously.

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Engaged in home work: admitted 10/10/44; examined same evening; bled ill for 8 days.
Family History good: not an abstainer but always temperate:
Complained blood after a fall 12 years ago: present illness began on Oct 7th with malaise and headache; took to bed on Oct 10th, Diarrhoea set in on Oct 11th; called in Dr. who ordered her to hospital.
Status on Admission: Too ill to be weighed: she was a well nourished girl of pale chlorotic complexion with two small pink spots over the malar bones; Temp. 104°F.

Her lips, teeth, gums and tongue were thickly coated with sordes and the mouth was dry and parched: throat in the same condition: appetite bad; thirst great; no vomiting: she stated that her bowels were loose and stools offensive. Abdomen slightly distended and tympanic and on palpation she complained of pain in the R. Siles Fossa with dull aching over the rest of the abdomen. Gurgling present: Liver had no increase of dullness perceptible. Spleen not enlarged but acutely painful.

Heart rapid but valve sounds normal: no enlargement

Pulse 102

Breathing rapid = 32 per min.: no cough: no abnormal sounds.

Cutis Rash on Abdomen: Tone spot on Chest.

No urine passed since admission: she states that the quantities have been very small.

Catarrh is regular.

Patient says she sleeps very well: no delirium.

Oct 16th: Patient did not sleep well and as the temperature showed signs of rising she was ordered by Dr. Benjamin to be put into the continuous bath at 6:30 p.m. Temp. of
bath 95°: Ordered also: Hydrogen Peroxide 3½

Ag. Chlorid at ½ - 1½ hr. in.

Pulse 112: Respiration 30: no motion: urine 3xxx. on p.

10.28: acids: no deposits: gives Stiech's test: Diet to be
fluids only.

Oct. 17: Highest temp. 104.2: pulse 100: respiration 28: Patient did
not sleep well in the bath: one pint of 0.0, added: at 6 o'clock
the temp. of bath lowered to 90° with good results. At 12 p.m. the
patient complained of cold: the bath was raised to 95°. No motion.

Pulse 116: respiration 32. At 5 p.m. she was taken out of bath,
having been continuously immersed for 4½ hrs: her
lump on removal was 104.6: uneasiness being felt in
the lower bowel an Enema of Oil was given producing
a copious motion: stool alkaline, fairly well form.
ed and typical in colour. Tuturis spots still well
marked. Mouth now moist and comfortable.

Oct. 19: Highest temp. 104.6: pulse 102: respiration 34:
sleep well: tongue quite bleached: throat clear:
taking nourishment well: 2 motions, semi-fluid, no
marked factor. Patient having been out of bath for 23½ hrs
was again at 4 p.m. put in at 99° lowered soon after
to 95° and at midnight again lowered to 90°: urine
35½. of p. 1022, acids, no albumen.

Oct. 20: Highest temp. 103.6: pulse 96: respiration 32: no motion:
patient feeling comfortable in bath.

Oct. 21st: Highest temp. 103°; pulse 120; respiration 22. at 2 a.m. patient had a motion followed by an Hecumrope (no rigor or sudden fall of temp.). 2 other Hecumrope at 4:30 p.m. 7 p.m. ordered. Diet changed to Reptonize milk; still taking well but sleeps badly.

Oct. 22nd: Highest temp. 103.4°; pulse 120; respiration 28. Slight Hecumrope occurred at 5:30 a.m. and 6:45 p.m. When she was taken out of bath having been in it for 16 1/2 hours. New crop of spots on abdomen: distension gone.

Oct. 23rd: Highest temp. 104.8°; pulse 120; respiration 30. Slight Hecumrope at 6 a.m., 12:45 p.m., 10:40 a.m., 12:50 p.m.; patient was sponged, cradled with cellular sheeting. Ice bag applied to abdomen. urine 4403: 10.20: acid; no albumen in.
Oct 24th: - Highest temp. 104.8; pulse 130; respiration 30; very restless all night; considerable hemorrhages at 4 a.m. & at 4, 7th & 8th p.m.; changing every 4 hrs. Sudden fall of temp. at 9 p.m. (no urine); at 10 p.m. it again rises & at 1036.

Oct 25th: - Highest temp. 104.8; pulse 130; respiration 36; slight hemorrhages at 9 a.m. & 2 p.m.; temp. intermittent; taking well.

Oct 26th: - Highest temp. 104.6; pulse 130; respiration 36; after being out of the bath for 4 hrs she was again put in at 2 a.m., water at 90°; her temp. rapidly fell to 98.2; the temp. of bath was raised to 95°; lowered at 2 p.m. to 98°; at 6 p.m. she was taken out having been in only 16 hrs. Her temp. at once rose to 104.2; urine 330, 1016, acid, no albumen.

Oct 27th: - Highest temp. 104.6; pulse 160; respiration 28; at 12 noon again put into the bath, water at 96° (she had been out 18 hrs).
Temp. again rapidly fell to 100.4°; one motion fairly formed, very little stool.

Oct. 28th:—Highest temp. 103°; pulse 102; respiration 40; at 10 a.m. she complained of cold; temp. of bath was raised to 98°; lowered at 4 p.m. to 93°; one motion, constipation, natural; urine 35 c.c.; 10.18, acid, no albumen k. Perspirate steadily continued; new crop of spots.

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<th>Name</th>
<th>Age</th>
<th>Disease</th>
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<th>Result</th>
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Oct. 29th:—Highest temp. 105°; pulse 120; respiration 40; bowels move 3 times rather dark & watery; at 8 a.m. taken out of bath having been in for 11 hrs; at 12 noon temp. was 105°; patient slightly deformed; ice bag put to abdomen & cold suds to head. At 2 p.m. again put into bath having been out 8 hrs, water temp. 93°; At 5 p.m. her temp. had fallen to normal; temp. of bath raised to 98°; lowered at 7 p.m. to 95°.

Oct. 30th:—Highest temp. 103°; pulse 120; respiration 52; 2 motions of
Good Consistene: stools still Alkaline: deteriour still continues: Complains of cold & bath raised to 98°: no urine collected.

Oct. 31st: — Highest temp. 103°: pulse 12: resp. 32: patient has now become profoundly anemic and is still deteious: 3 motions typically typhoidal: peptonised milk & beef tea as diet: Fr. Digial in X given every three because of signs of heart failure: at 2 p.m. temp. of bath lowered to 90°.

Nov. 1st: — Highest temp. 101: pulse 114: resp. 36: one motion: breathing slightly laboured: at 8 p.m. bath raised to 97°.

Nov. 2nd: — Highest temp. 104.8: pulse 128: resp. 36: at 11 a.m. temp. being subnormal, she was taken out of the bath, having been in for 95 min: at 2 p.m. the temp. stood at 103.7: one motion semi-fluid: wine, 1010, Acid, no albumen: respiratory embarrassmement still continues: ice poultice to abdomen.
Nov. 3rd: - Highest temp. 104.4°: pulse 140: respi 32: very restless
right: Cheyne Stokes breathing noticed: slept for several hours
while in bed: 3. Rec. from m. & f. Digital m. given 4h. b. c.
Sponging every 3 hrs: at 10 p.m. put into bath again having been
out 3 hrs: at 12 p.m. breathing was less marked but Cheyne
Stokes still present. Oedema of the lungs audible: patient
very comatose: pulse weak & rapid: m. motions very watery:
American carb. & Atropine given.

Nov. 4th: - At 2 a.m. taken out of bath having been in only
4 hrs. Patient gradually sank & died at 3.10 a.m.

Days in Hospital = 20.

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<td>Ada Patterson</td>
<td>19</td>
<td>Pulmonary Tuberculosis</td>
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Bath Chart of the preceding case:

The shaded lines represent the time the patient was
out of the baths. The upright red lines represent days.
Case II. C.B. Age 26. 

Clerk in Insurance Office; admitted 11/11/94; examined same evening; was ill for 10 days.

Family History: very good; abstains. She states that there is a bad odour from a sewer pipe close to a window in the office; no other clerks affected. She has had small pox, measles, influenza and suffers from Chronic Dyspepsia. On Oct 28th she was seized with headache & pains all over her; diarr-
hers set in on Nov. 1st, and she had to takes to bed.

State on Admission: - very well nourished girl; face flushed
and lice like a log in bed. Temp. 104.6°. Life dry &
tongue covered with white fur; throat dry but not covered
with sordes. She states that her bowels have been loose for
several days. Abdomen distended with tympany, with tenderness
and jangling in the R. Flap fossa. Spleen enlarged &
tender. Heart sounds normal, rapid: pulse 116 full &
bounding. At the base of the left lung a few
Ronchi are to be heard: no cough. Well marked
bacillary spots on the chest. Urine $3/4$. SG. 1030
acid: no albumen & gives Erlich's test.

Patient has had Amebiasis since last May: there
is no delirium or twitching of muscles.

Nov. 4th: - Patient's temp. being as high, she was put into the
continuous bath at 4 p.m. temp. of water being 100°, to be
lowered to 93° on the fall of her temp. She complained
of great discomfort and of being unable to go to sleep.
Diet to be fluids only = milk, beef-tea, orange & grape juices.
No motion of bowels.

Nov. 8th: - Highest temp. 102.8°; pulse 106; respiration 22; no motion
of bowels; condition unchanged.

Nov. 9th: - Highest temp. 101.8°; pulse 116; respiration 24; Helix in
bowels; no motion; crop of spots on Abdomen; mouth has
Nov. 10th: - Highest temp. 101.6; pulse 116; respiration 22; no motion. Patient feeling very ill and asking for more to eat. Taken out of bed at 6:30 p.m. having been in for 69 hours; ice and Leiser applied to abdomen. Tepid sponging every three hours ordered.

Nov. 11th: - Highest temp. 102; pulse 112; respiration 28; two motions formed and of natural colour: urine \( \frac{3}{x \times x} \), 1016, acid, no albumen. Still gives Leiser’s test.

Nov. 12th: - Highest temp. 99.8; pulse 100; respiration 24; one motion formed; abdominal distension gone.

Nov. 13th: - Highest temp. 99.6; pulse 100; respiration 24; no motion; urine \( \frac{3}{x \times x} \); acid. 1020, no albumen or deposit.

Nov. 14th: - Temp., normal 3/2 day; in evening 101; pulse 100; respiration 24. Leiser’s tube left off; sponging still continued. No
Nov. 15th:—Temp. still normal: erythematous rash appeared over arms and round both knees: patient slept well for the first time since admission: no motion.

A stimulant enema was given on the 16th with no result. A glycerine suppository was given on the 17th producing 3 motions more or less formed: on the 18th the stools were left off.

Nov. 19th:—Highest temp. 101.9; pulse 100; respiration 20: a glycerine suppository was given in the morning producing a copious dark-coloured motion: urine 3; acid. As the patient was complaining of hunger Bury's food was allowed.

Nov. 20th:—Highest temp. 101.6; pulse 100; respiration 20: no motion: patient feeling well.

Nov. 21st:—Highest temp. 101.2; pulse 100; respiration 20; one motion after glycerine suppository; still rather dark.
Nov. 22nd:— Highest temp. 101.8; pulse 90; resp 15; no motion; beetroot eggs added to diet.

Temp. now gradually dropped to normal on the 26th; the bowels had always to be moved by Eumus. Milk diet was ordered on the 29th; Peroxide stopped same day.

Dec. 1st:— Temp. to day went up to 101.8 due to the development of Rhinitis in the left leg; pulse 102; resp 30; leg treated by elevation & feet Belladonna diet reduced to fluids.

On the 3rd the temp. stood at 103.6 and this was the highest reached. It now gradually fell to 101.55 was normal.

Dec. 7th:— Rise of temp. to 102; but patient feeling very well.

Dec. 10th:— Temp. again normal; fomentations left off; milk diet given; bowels still obstinate; Eumus simply given.
Dec. 11th:—Boiled fish added to diet; glycerine enema given producing one motion, hard, dark and bulky, urine 345; acid.
10:24: no deposit.

Dec. 12th:—Cast to 3½ quarts + repetition on 13½ + 7½;
This gave a motion each day. Patient now convalescent.

Dec. 20th:—Fancy diet ordered.
Dec 23rd: - Propped up in bed.
Dec 28th: - Walked for the first time since admission.
Jan. 3rd: - Discharged well.
Days in Hospital 58.

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Case III: L.S.F., Age 45:
Sudden Fever.
Housekeeper. Admitted 24/12/91; examined same evening; been ill for a week.

Family History: Very bad; been very tempestual all his life; good home; had Rheumatism 2 years ago, attack of pneumonia. She has been feeling out of sorts for about a month. One week before admission she was seized with purging which has continued. Took to bed 3 days before admission; complained of pains all over her.

State on Admission: - Weight 9st 4lbs. 6oz: rather thin with flushed complexion: slight stiffness at elbow (Rheumatic); Temp. 102.
Lips dry; tongue dry cracked & glazed: throat dry and she appeared to have some difficulty in swallowing. Appetite bad: thirst great. Bowels are loose, stools foul-smelling, gphoric.
Abdomen distended & tympanitic, with resisting walls: slight tenderness & gurgling in the R Lowerossa; liver not enlarged.
Spleen slightly larger than normal: no pain. For some time back the patient has had pain over the precordia with fits of palpitations; also fainting fits, blushing at the nose. Apex beat well marked in 5th interspace; right
border at edge of stoma: upper border in 2 1/2 interspace.

Lungs: brisk in nitral area, cystic in line + conveyed round into ascilla. Pulse 106 irregular but full with well sustained tension both during and between the beats. Respiration 32 short: slight cough: no expirations: dulness over both bases with diminished fremitus. Loss of breath sound, coarse crackles taking their place. Well marked hyperpnea at night over Abdomen, Chest & Back. No urine passed since admission. Patient has not menstruated for two months.

Very restless and irritable with tendency to wander. Intermittent twitching of muscles in arms and legs.

Dec. 26 ½: Put on Hydrogen Peroxide 3/4, Ag Chloride 1/3, Alcohol 1/6, Bicarbonate

Diet = milk, tea, water, beef broth.

Dec. 27 ½: Highest temp. 102.4; pulse 96; respiration 40. Patient passed a very restless night. No cough becoming rather troublesome: warm hys partial relief put in basin. Lipid sparging every 4 hours. Retention of urines being present. The caltis was passed: urine 3 x 11, 4 g. 102.4, acid, deposit of urate, no albumen. Gives Ehrlich’s test; one motion, watery + alkaline.

Dec. 28 ½: Highest temp. 102.4; pulse 86; respiration 30; petile very restless + sleepless. Chloral Hydros 4 1/2 ad 8. No caltis passed this day. Crackles extending to ascilla. Taking very well: tongue moist & bleached. Throat trouble few: distitus much less. Two motions still wanting.
Dec 29th - Highest temp. 103.2; pulse 89; respi. 24; patient had a good night, sleeping for 6 hrs; urine 3x+x. 102, Acid. Still gives Erlich's test: 3 motions semi-fluid; distension quite gone.

Dec 30th - Highest temp. 103.4; pulse 92; respi. 32; tendency to somnolence therefore Chloral left off; had good night; cough much less; 4 motions two of them very liquid; very little feces; pears of Starch with 10m 7r. op. fixed.

Dec 31st - Highest temp. 102.6; pulse 104; respi. 32; slept well all night; pastisness passing off; urine 3x+x. 102; acid; deposit of urates; 5 motions same in quantity; fairly well formed.

Jan 1st - Highest temp. 101.4; pulse 82; respi. 24; had good night. On withdrawing the Kathrin's feet was noticed on the proximal cut and on examination a purulent discharge was discovered coming from the Vagina accompanied by considerable Intertrigo of the Perineum & Thighs.

Lot Hydrarg. Perchlor. 1 in 3000 ordered every 4 hrs, along with Boric douche as dusting powder. 3 motions, semi-formed.

Jan 2nd - Highest temp. 101.4; pulse 72; respi. 20; did not sleep well; cough almost gone; no expectorations to be heard now; gurgling stil perceptible; Vaginal discharge still present; Intertrigo much less; 4 motions the same in quantity, as the previous day; Formula of Starch Topirum few; passing urine naturally.
Jan. 3rd: Highest temp. 100.6; pulse 74; respir. 20; slept well.
Not taking as well; ordered peptonised milk, urine 340; 1020; acid, no deposit; motions two formed.

Jan. 5th: Patient doing well; urine 3xxxv, 1020, acid; no deposit; rash disappeared; 3 motions, one rather loose; Bume of Starch, 40p., given.

Jan. 8th: Still doing well; no further rise of temp; cough has totally disappeared; urine 340, 1020, acid.

Jan. 10th: Patient now convalescent; taking well; Benger's Food added to diet; one motion, quit natural; Respiration shows a tendency to quicken in the evening.

Jan. 13th: Feeling very well; asked for increase of diet; Bread and milk was allowed, no motion.

Jan. 16th: No motion for 3 days; glycerine suppository...
Jan 17th: Boiled sole added to diet; propped up in bed; no motion.

Jan 19th: Glycerin suppository given = one motion natural.

Cystitis was noticed to-day; patient says she frequently has had it; bladder washed out with Boric Solution. Vaginal discharge now completely stopped; urine three times 102.2, neutral, containing pus: catheterization required.

Jan 21st: Fancy diet ordered; urine still has trace of pus but is being passed naturally. Perovicide stopped; patient sat up; weight 8.9.11.

Jan 26th: Enema given = 3 motions.

Jan 29th: Discharged well; urine still neutral but no pus; weight 8.12.0.
Days in Hospital = 35.

Case IV. J. J. Sept 24.

Cabinet-maker. Admitted 9/26: examined same day; been ill for over a week. He knows nothing of his parents being an illegitimate charity boy: abstains; good home and good surroundings, at work. Has had Gonorrhoea always been healthy. On Christmas Day previous, he had a large feed of oysters and next day he was sick. Had a splitting headache and Diarrhoea about a week later. He states that the drinking water at his work was stale. 

State on Admission: - weight 9st 10lbs. Of normal temper-ament and lies like a log in bed. Temp. 104tt.

Lips and tongue covered with pustules, tongue also deeply furred; appetite gone; bowels have been very relaxed but for the last 2 days they have been constipated. Abdomen disten-
dead and gurgling present. Spleen tender & enlarged.

Lung sounds normal, no enlargement: pulse 104: Over the left lung a few Bronchitis sounds are to be heard.

Slight cough: Respiration 24: There is a well marked bilateral pleurisy over Abdomen. Chest & Back. Urine 3x 1028, acid: trace of Albumen. urine & leech's test:

Slight delirium present at night.

Jan. 10th: Highest temp. 103.4: pulse 110: respi 26: patient very delirious during the night: ordered tepid sponging every 11/2 hours with olive oil, couch, cold water on face.

Jan. 11th: Highest temp. 102.6: pulse 112: respi 24. Very delirious during the night. A violent rigour occurred at 11 p.m. No motion.

Jan. 12th: Highest temp. 103.2: pulse 110: respi 28: no delirium during the night: condition much improved: taking well: tongue moist & white: one motion: at 8:30 p.m. immediately after being sponged he had a rather violent hemorrhage. Slept well afterwards: Chloral taken out of mixture. Urine 1022: acid: no albumen.

Jan. 13th: Highest temp. 102.6: pulse 112: respi 28: Bowel moved once, motion dark but no blood: stool alkaline.

Plagued of cold to day the cradle was taken off. On motion
relaxed; rash still present; sponging continued.

Jan. 15th: Highest temp. 102.4; pulse 106; respir. 22; patient
feeling very well; Abdominal distension all gone; no motion.

Jan. 16th: Highest temp. 101.2; pulse 104; respir. 24; sleeps
well; says he feels hungry; beef tea added to diet; no mo-

tion.
Jan 18th: Highest temp 101; pulse 100; respiration 24; no motion since the 13th.

Jan 19th: Condition still improving; one motion, formed.

Jan 20th: Evening temp. normal; urine 340:1010; acid; no albumen; no motion.

Jan 21, 22, 23: No changes; rash all gone; ice bag taken off on 24th (Refer to the 21st, see chart 3); 2 motions - semi-formed Persoide stopped.

Jan 25th: 3 motions after an enema; patient feeling very well; there was no further rise of temp.

Jan 29th: Brand's jelly added to diet.

Feb 4th: Propped up in bed.

Feb 9th: Sat up on couch.

Feb 12th: Dr. Sicuni F17; patient was troubled with
constipation during convalescence.

Feb. 20th: Temp rose to 100 with headache: normal again in evening.

Mar. 13th: Discharged well.

Days in hospital = 63.

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Case V. C.B. Ages 26:

Ontario Fever.

Keeps house for her father: admitted July 9th; examined same day.

Family History: Mother died of Pneumonia after Influenza.

otherwise history good: abstainer: good home: has had Scarlet Fever: is troubled with Bronchitis. She has been
for 5 weeks nursing her brother with Typhoid contracted in the Isle of Wight: been ill for 10 days.

Status on Admission: Face very flushed: lies in bed like a Typhoid patient, sleepy and inattentive. Temp. 102.

Tongue covered with a creamy fur beginning to turn brown: corners on lips, gums black: stools have a very
heavy odour: Abdomen distended: lymphatics: no

gurgling present: spleen not enlarged; no tenderness:
bowels constituted but have been opened by aperitifs
before admission. Heart normal: respiration regular:

pulses 92; easily compressed. There is a small patch
of Pneumonia at the right base over which respir-
tations are heard: sputum rusty coloured. Well
marked pustule rash on Abdomen & chest. Urine
Feb. 13th: Highest temp. 102°; pulse 88; respiration 30; put on Hydromine Peron. 3½ drops at 5; every 1½ hours. Liquid sponging every ½ hour. Diet: milk, soda water, beef-tea, iced lemonade; urine had to be drawn off 3½. Spgr. 1030; gives sulphalbumin acid test. Stool gave no motion, formed normal in colour.

Feb. 14th: Highest temp. 102°; pulse 80; respiration 30; slept well; urine taken off by bottle; bio dies: no motion.

Feb. 15th: Highest temp. 103°; pulse 88; respiration 28; tongue + lips now quite moist + bleached; breath has lost its bad odour. Calomel ½ gr. given; no motion; future now frothy + white, cough almost gone.

Feb. 16th: Highest temp. 102°; pulse 90; respiration 32; had a rather restless night; bowels moved once; stool alkaline + loose; urine 3½; 1030; acid, no albumen tp.

Feb. 17th: Highest temp. 102°; pulse 90; respiration 24; patient feeling well; taking well; Abdominal distensions almost gone; no motion; fresh crop of sputum.

Feb. 18th: Highest temp. 103°; pulse 76; respiration 24; Calomel still being used; urine 3½; 1022; acid; no albumen tp; no motion.

Feb. 19th: Highest temp. 103°; pulse 88; respiration 26; temp. at 12 midnight had fallen to 98 after calomel ½ gr.; no motion; patient feeling well.

Feb. 20th: Highest temp. 100°; pulse 84; respiration 30; had good night. Cough now almost nil. Diarrhoea set in to-day.


Feb. 22nd: Highest temp. 101.2: pulse 88: respiration 26: condition still the same: patient says she feels quite well.


Feb. 24th: Highest temp. 102.2: pulse 80: respiration 26: She complained of great uneasiness in the lower bowel & nausea.

Dr. Olivar was given producing a hard formed motion: urine 3xxx acid: 1020. She continued in the same condition for several days the bowels moving once a day & motions being formed but on Mar 1st: the temp. suddenly
Mar 14 th - Highest temp. 103.2; pulse 100; respi. 32; slept well all night; sickness continues. Subcut. - Enema given but rejected by the bowel; a long tube (oesophageal) was

Mar 2 nd - Highest temp. 103.14; pulse 100; respi. 28; very restless & did not sleep any during the night. Sickness still continues; iced soda water & milk ordered. Lister's tube again applied to the abdomen; 2 motions, rather loose.

Mar 3 rd - Highest temp. 103.2; pulse 100; respi. 32; insomni. still continues; Chloral Hyd. g. 1/2 added to mixture. Sickness still present; urine 1022, acid. Bp. 190/80; gave sleep.
then passed into the Rectum and Enemata thus put in were retained: 2 motions, loose from Enemata. Indican present in large quantities in the urine.

Mar. 5th: Highest temp. 102.8; pulse 104; respiration 32; sickness still present; ice to mouth; rectal tube working well; 2 motions.

Mar. 6th: Highest temp. 103.2; pulse 88; respiration 24; sickness stopped. Patient had good night; sparging still continued. Tasty only, ordered by the mouth as diet. Rectal feeding stopped; Chloral hydrate: stopped; urine still contains Indican.

Mar. 7th: Highest temp. 102.8; pulse 100; respiration 26; two motions loose.

Mar. 8th: Highest temp. 102.6; pulse 92; respiration 30; had restless and delirious night; ice to mouth; retention of urine again occurred requiring Catheter. Urine 1030, acid; no albumen; trace of Indican; no motions.

Mar. 9th: Highest temp. 100.2; pulse 92; respiration 24; tinct. commie again came on: Enema of Pot. Ames & X.

Chloral hydrate 85 given: Enema of Beef tea 3 lfs. & ammon. bark 85 given every 3 hrs. 6 days; 3 motions = 5 a.m.

Mar. 10th: Highest temp. 102; pulse 102; respiration 26; sleeplessness still present, dry mouth & 1/2 given = sleep for 6 hours. Tasty only as sickness is again present; fresh crop of spots. Two motions, semi-fluids.

Mar. 11th: Highest temp. 102.2; pulse 98; respiration 28; Copious

No sooner a.m. no rigor or fall of temp.
By hypod. Morph. Sulph. 67\% & Expect at 8\% 300. Leed 6\% to Mc

<table>
<thead>
<tr>
<th>Date</th>
<th>Temp (\degree F)</th>
<th>Pulse</th>
<th>Resp</th>
<th>Bowels</th>
</tr>
</thead>
<tbody>
<tr>
<td>12%</td>
<td>102.4</td>
<td>100</td>
<td>24</td>
<td>6</td>
</tr>
<tr>
<td>13%</td>
<td>102.2</td>
<td>88</td>
<td>28</td>
<td>6</td>
</tr>
<tr>
<td>14%</td>
<td>102.8</td>
<td>102</td>
<td>30</td>
<td>3</td>
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<tr>
<td>15%</td>
<td>102.4</td>
<td>100</td>
<td>26</td>
<td>25</td>
</tr>
<tr>
<td>16%</td>
<td>102.2</td>
<td>100</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>17%</td>
<td>102.8</td>
<td>100</td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td>18%</td>
<td>102.4</td>
<td>104</td>
<td>24</td>
<td>1</td>
</tr>
</tbody>
</table>

Mar. 12th:
- Highest temp. 102.4\%; pulse 100; respiration 24; another
- Somnambulism at 7 a.m. (slight).
- No motion: urine 3××, 1012, Acid, no albumen.

Mar. 13th:
- Slight snoring: no motion: picking bed clothes present.

Mar. 14th:
- Highest temp. 102.8\%; pulse 102; respiration 30; no motion.
- Urine: 1020, Acid, no albumen.

Mar. 15th:
- Highest temp. 102.4\%; pulse 100; respiration 26; 2 motions:
  - More relaxed than on 14th.
  - Sicknesse now completely gone.

Mar. 16th:
- Slight snoring.
- Milk and whey half and half given.

Mar. 17th:
- Highest temp. 102.8\%; pulse 100; respiration 24; no motion.

- Flocculation still present and marked muscular twitchings.

Mar. 18th:
- Highest temp. 102.4\%; pulse 104; respiration 24; no motion.
- Semi-fluid urine 1022, Acid, no albumen & 5\% indica gone.
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Temperature</th>
<th>Pulse</th>
<th>Resp</th>
<th>Bowels</th>
</tr>
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<td>102.2</td>
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</tbody>
</table>

Mar 19: Highest temp. 101.4; pulse 106; respi. 26; passing motions involuntarily again, stools being relaxed.

Mar 20: Highest temp. 102.2; pulse 92; respi. 24; involuntary motions still continue; force of stools somewhat increased which cleared out the bowel effectively; trembling of muscles & flocculent diphysea. Urine 1022, acid, no albumen in.

Mar 21: Highest temp. 102.2; pulse 112; respi. 26; one motion relaxed; chicken broth & orange juice allowed.

Mar 22: Highest temp. 102.2; pulse 108; respi. 24; one motion; condition unchanged.

Mar 23: Highest temp. 102.2; pulse 106; respi. 24; 2 motions passed; losses albumin at 8 p.m.: 3. 0 p. with 0.5.

Mar 24: Highest temp. 102.2; pulse 90; respi. 24; one motion more formed; urine 3××××. 1022, acid, no albumen.

Mar 25: Highest temp. 102.2; pulse 102; respi. 32; one
March 26th: - Temp. 101.6; pulse 96; respiration 30; one motion noticed.

March 27th: - Highest temp. 101.4; pulse 104; respiration 30; passing motions involuntarily; Indian in quantity in the urine.

March 28th: - Highest temp. 101.4; pulse 108; respiration 24; simple enema given which stopped the involuntary motions.

March 29th: - Highest temp. 102.6; pulse 108; respiration 24; motions in the evening again became involuntary; Rangers food added to diet.

March 30th: - Highest temp. 102; pulse 108; respiration 22; patient feeling better; motions still passed unconsciously; Breathing up.

March 31st: - Highest temp. 102; pulse 112; respiration 36; still involuntary motions. Urine XXX; acid, 1016; no Indian.

April 1st: - Highest temp. 101.4; pulse 120; respiration 26; Enema.
March 26th

A bed sore appeared over the sacrum; warm, bed ordered. Brant's essence and raw meat juice given.

March 27th

Highest temp. 101.2; pulse 100; respiration 26; one motion.

Melline food and chicken broth added to diet.

March 31st

Highest temp. 101.6; pulse 96; respiration 26; involved.
Very motionless again. Stools which had become more again alkaline.

Aprt. 6th: Condition the same as 4th:

Aprt. 7th: Highest temp. 99.6°; pulse 96; respi. 24; no motion.

Aprt. 9th: Condition much the same: fresh juice of fruits ordered; bed corps looking well: dressed with Peroxide.

Aprt. 11th: Highest temp. 100.6°; pulse 88; respi. 22; thin arrow-root: urine now normal: course = 1 motion, formed. The temp. now gradually fell to convalescence. Diet carefully increased. She was propped up in bed.

Aprt. 15th: Had boiled sole on 16th; bread & butter on 18th; Bowels in convalescence were very constipated; bed corpsrapidly healed on establishment of convalescence.

May 26th: Discharged well.

Days in Hospital = 102

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Case VI. F. B. Aprt. 16.

Eulalie Jones.

Clark. Admitted 4/2/96; examined same day: This is a brother of the preceding case. Has had Malaria & Pneumia. His brother is just recovering from an attack of Typhoid & he has been assisting to nurse him. A week before admission he was seized with pain in the abdomen, with headache & anorexia: 4 days ago he had to give up work.

State on Admission: Very apathetic. Temp. 100°.

Tongue deeply furrowed: no appetite; complaints of pain in the R. Side Fossa; abdomen not distended: slight
Gurgling to be felt; bowels constipated; heart sounds normal; pulse 108; slight cough with Bronchitis; sounds present over left lung; respirations 28; Urine sp. gr. 1006; acid, no albumen &c. No casts present.

Feb. 14 th: Highest temp. 104°; pulse 112; respir. 28. The temp. never rose above this during the attack which was a very mild one.

Sponging very frequent; Leiter's tube in Abdomen; cradled with cellular sheeting; Put on Hydrogen Peroxide 3%, q.d. calomel ad 3/4 l.d.s. Milk diet ordered.

Feb. 15 th: Temp. to-day came down by a sort of crisis to normal; pulse 70; respir. 24; No motion.

Feb. 16 th: Highest temp. 100.8°; pulse 76; respir. 24; bowels moved to-day; stoil semi-fluid, tarry; urine 1020. acid. Gills &c.

Leich's test.
<table>
<thead>
<tr>
<th>Feb. 17th</th>
<th>Feb. 18th</th>
<th>Feb. 19th</th>
<th>Feb. 21st</th>
<th>Mar. 3rd</th>
<th>Mar. 20th</th>
<th>Apr. 3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>High temp. 100.6; pulse 80; respiration 24; no motion. Patient feeling hungry; tongue moist and blanched.</td>
<td>Temp. normal; shivering ceasing; calms stopped.</td>
<td>No further rise of temp.; patient convalescent; urine gave one motion. Case. Stayed. Ordered every day.</td>
<td>Patient doing well; got up; bowels still troublesome; urine 10.22 acid. Still gives Ehrlich test. Prep. stopped.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mar. 20th: Still improving; gaining weight; bowels continue.

Apr. 3rd: Discharged well; two days ago he contracted a slight cough for which he got — Ammon. Prom. 8th. + Syrup. Senega 3/4 c. d.s.

Days in hospital = 42.

Details of the bath used in the treatment:

- Length 6 ft; breadth 3 ft; depth 29 in.; the bottom of the bath was 53 ft by 2 ft, thus giving the bath a large size.
as to depth. It was made of zinc. About 3½ in. from the bottom there ran a ledge all round on which to rest a zinc frame supporting a network on which the patient lay. There was also a sloping rest supported by hooks to the top of the bath for the purpose of raising the head & shoulders, on an inclined plane. It took 10 min. to fill & the temp. was regulated by the entrance of a pipe connected to both cold water systems of the Hospital. A thermometer stood at the head of the bath. An opening in the network opposite the arms allowed the excreta to drop into a funnel connected to a receiver outside & below the bath where disinfection was practiced & thus the contamination of the water was reduced to a minimum. The temp. could be raised or lowered in 2½ min. A carriage frame work on wheels was run over the bed & the patient lifted by a wheel & ratchet arrangement, & thus conveyed over the bath into which she was lowered by the same mechanism the whole occupying about 5 or 7 min. & the patient being practically never moved. All designed by the late Sir P. Ward Richardson.

P.T.O.
I hereby certify that the preceding Thesis has been written and composed by myself, and that the copies of the charts used in the cases have also been done by my own hands.

Andrew Philip.