

HAMSTERS

SUSCEPTIBILITY OF HAMSTERS TO LANSING VIRUS

PURPOSE: To determine the susceptibility of Syrian hamsters to Lansing virus.

VIRUS: Lansing virus: Pool of 2/5/51 10^{9.0} suspension^{ie. 1:10} in saline. Centrifuged 10 minutes at 2000 rpm

PROCEDURE: The virus was diluted to 1:20 in saline. 0.05 ml. of this suspension was inoculated intracerebrally.

HAMSTERS: 12 Syrian hamsters 22-27 gm

MORBIDITY = 92%

MORTALITY = 42%

AVE. INC. PER. = 4.5 DAYS

THE EFFECT OF CORTISONE ON THE SUSCEPTIBILITY OF HAMSTERS TO LANSING VIRUS

PURPOSE: To determine the effect of cortisone on the susceptibility of Hamsters to Lansing virus.

VIRUS: Lansing virus: Pool VI of 2/5/51. 10% suspension in saline. Centrifuged 10 minutes at 2000 rpm to remove flocculent ppt.

PROCEDURE: The virus was diluted 1:20 and 1:100 in saline. The hamsters were divided into the following groups:

- I 10 hamsters - 0.05 ml of 1:20 dilution of Lansing virus intracerebrally
- II 10 hamsters - 5 mg cortisone intramuscularly. 0.05 ml of 1:20 dilution of Lansing virus intracerebrally.
- III 10 hamsters - 0.05 ml of 1:100 dilution of Lansing virus intracerebrally
- IV 10 hamsters - 5 mg. cortisone I.M. 0.05 ml. of 1:100 dilution of Lansing virus intracerebrally

Note - Two of the forty hamsters showed a slight reaction after inoculation of cortisone.

HAMSTERS: 40 hamsters 24-44 grams

The hamsters were distributed so that each of the four groups were nearly equal in average weight.

Group I (Untreated - Virus 1:20) 28-44 grams
27, 28, 29, 29, 33, 33, 38, 38, 44, 44 av. = 35.0 grams

Group II (Treated - Virus 1:20) 26-43 grams
26, 26, 29, 29, 33, 33, 39, 39, 43, 43 av. = 34.0 grams

Group III (Untreated - Virus 1:100) 27-42 grams
27, 27, 29, 29, 36, 36, 38, 38, 42, 42 av. = 34.4 grams

Group IV (Treated - Virus 1:100) 24-41 grams
24, 24, 33, 33, 38, 38, 40, 40, 41, 41 av. = 35.0 grams

Lakeview Hamster Colony

CORTISONE: Cortisone Acetate, Nuch dot #103 5 mg / ml. Containing added suspending agents and 15% benzyl alcohol.

APR 18 1951

SPECIMEN	VIROS	No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	MORTALITY				
A		1	-	P	D																																		6/30	2		
		1:20	2	-	-	-	-	-	-	-	-	-	-	-	-	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	11		
	44 gm.																																									
UNTREATED HAMSTERS SALINE		1	-	PP	PP	D																																			10/10 CNS	2
		1:20	2	-	-	-	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	5		
	32 gm.						CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS			
LANSING		1	-	PR	D																																				2	
		1:20	2	-	-	-	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	4		
	32 gm.						CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS	CNS			
LANSING		1	-	PP	D																																				2	
		1:20	2	-	-	-	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	4		
	27 gm.																																									
B HAMSTERS TREATED WITH 5mg. CORTISONE INTRAMUSCULARLY		1	-	-	-	E	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR		5
		1:20	2	-	-	-	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	5	
	43 gm.																																									
SALINE		1	-	-	-	h	PR	PR	PR	D																															3	
		1:20	2	-	-	-	h	CNS	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	PR	3	
	29 gm.																																									
SALINE		1	-	-	-	D																																			4	
		1:20	2	-	-	-	?	?	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	7		
	32 gm.																																									
LANSING		1	-	-	-	CNS	D																																		4	
		1:20	2	-	-	-	CNS	CNS	D																																4	
	29 gm.																																									
LANSING		1	-	-	-	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	9		
		1:20	2	-	-	-	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	6		
	36 gm.																																									

10/10 CNS
5/10 D
10/10 P
6/10 D

SPECIMEN	VIRUS AM.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	MORTALITY	LDS		
C UNTREATED HAMSTERS	1:100	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10P	4		
	428m	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10P	4	
	1:100	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0/10D	3	
	316m	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10P	4	
	1:100	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10P	4	
	368m	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10P	4	
	1:100	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10P	4	
	298m	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10P	4	
	1:100	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10P	4	
	278m	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10P	4	
D HAMSTERS TREATED WITH 5mg. CORTISONE INTRAMUSCULARLY	1:100	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10P	7	
	418m	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10P	7	
	1:100	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10P	5	
	438m	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10P	5	
	1:100	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10D	6	
	316m	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10D	6	
	1:100	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10D	7	
	228m	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10D	7	
	1:100	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10D	7
	228m	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4/10D	7

* This hamster probably died of injury sustained when it fell at least from table.
all survivors were male.

THE EFFECT OF CORTISONE ON THE SUSCEPTIBILITY OF HAMSTERS TO LANSING VIRUS

UNTREATED - LANSING VIRUS 1:20

HAMSTER NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35			
2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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2	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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MORBIDITY = 10/10 ; MORTALITY = 5/10

HAMSTER NO. CORTISONE - 5mg - I.M. - LANSING VIRUS 1:20

5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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4	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

MORBIDITY = 10/10 ; MORTALITY = 6/10

4.9

THE EFFECT OF CORTISONE ON THE SUSCEPTIBILITY OF HAMSTERS TO LANSING VIRUS

UNTREATED - LANSING VIRUS 1:100

HAMSTER NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓
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4	5	-	-	-	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	✓
6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓
3	7	-	-	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	✓
4	8	-	-	-	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	✓
4	9	-	-	-	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	✓
10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓

3.7 MORBIDITY = 4/10 ; MORTALITY = 0/10
CORTISONE - 5mg. - I.M. - LANSING VIRUS 1:100

HAMSTER NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35		
7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	
2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	
2	3	-	P	P	D																																✓
5	4	-	-	-	-	P	D																														✓
6	5	-	-	-	-	?	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	✓	
7	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓
7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓
8	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓
7	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓
5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓

5.7* This hamster probably died of injury sustained when it fell on floor from table
 all survivors were male
 MORBIDITY = 5/10 - probably 7/10
 MORTALITY = 4/10

Effect of Cortisone on Poliomyelitis in Hamsters

Purpose: To determine whether the breed of hamster and the type of cortisone used may be responsible for the difference in the results obtained ~~in~~ in this laboratory and by Dr. Schwartzman

A subsequent experiment will test the role of the strain of virus.

Virus used: ^(Lansing Virus) One ampule of lot U, 2/5/51, thawed and centrifuged. Sn. liquid diluted 1:10 in saline to yield virus 1:100. 0.05cc injected intracerebrally

Hamsters Used: "Schwartzman" variety obtained from the Breeding and Laboratory Institute, 619 Kent Ave., Brooklyn, N.Y. Ordered 40 male hamsters weighing 19 to 26 Gm. Thirty-nine hamsters arrived 5/24 all "golden" - weights shown in separate protocol

"Cincinnati" variety obtained from Lakeview Hamster Colony, Newfield, N.Y. Ordered 40 male hamsters, 19 to 26 Gm. Forty arrived 5/23 - 35 "golden", 5 white & yellow hair. Weights shown on separate protocol

Cortisone Used: Cortone Acetate - Merck Lot No. 1322 25 mg/cc - contains suspending agents and 1.5% benzyl alcohol. This arrived 500 mg. of this preparation arrived from Dr. Schwartzman this morning and appears more homogeneously suspended than the 5 mg/cc preparation we used before. 0.2cc or 5mg was given intramuscularly into a hind leg just before the virus was given intracerebrally. No reactions from the inoculation.

Order of inoculations: All the untreated controls were inoculated first. Then cortisone was given to the treated groups, followed by virus.

Results

<u>HAMSTERS Used</u>	<u>Incub Period</u>	<u>UNTREATED</u>		<u>Group</u>	<u>Cortisone - 5mg - 1dose</u>	
		<u>Paralyzed</u>	<u>Dead</u>		<u>Paralyzed</u>	<u>Dead</u>
Shwartzman	3.8	68.4%	26.3%	4.8	100%	95%
Cincinnati	6.6	40%	20%	5.2	95%	80%

WEIGHTS OF "SHWARTZMAN"
(BREEDING AND LABORATORY INSTITUTE) HAMSTERS

CAGE # XX
UNTREATED - LANSING VIRUS 1:100

CAGE # 44
UNTREATED - LANSING VIRUS 1:100

ARRIVAL WEIGHTS PREINOCULATION WEIGHTS

5/24

5/25

14 gm. 19 gm.

15 gm. 20 gm.

15 gm. 21 gm.

15 gm. 21 gm.

15 gm. 21 gm.

15 gm. 22 gm.

17 gm. 23 gm.

17 gm. 23 gm.

17 gm. 24 gm.

18 gm. 24 gm.

AVG. WT. 15.8 gm.

AVG. WT. 21.8 gm.

ARRIVAL WEIGHTS

PREINOCULATION WEIGHTS

11 gm. 17 gm.

14 gm. 19 gm.

14 gm. 20 gm.

15 gm. 20 gm.

16 gm. 21 gm.

17 gm. 22 gm.

17 gm. 22 gm.

17 gm. 23 gm.

19 gm. 26 gm.

AVG. WT. 15.6 gm.

AVG. WT. 21.1 gm.

CAGE # 74

TREATED 5mg cortisone - LANSING VIRUS 1:100

CAGE # 36

TREATED 5mg cortisone - LANSING VIRUS 1:100

ARRIVAL WEIGHTS

PREINOCULATION WEIGHTS

11 gm. 15 gm.

13 gm. 18 gm.

13 gm. 18 gm.

14 gm. 19 gm.

15 gm. 20 gm.

16 gm. 20 gm.

16 gm. 21 gm.

16 gm. 21 gm.

16 gm. 22 gm.

AVG. WT.

14.7 gm.

AVG. WT.

19.7 gm.

AVG. WT.

15.7 gm.

AVG. WT.

21.3 gm.

18 gm.

24 gm.

WEIGHTS OF "CINCINNATI" (LAKEVIEW
HAMSTER COLONY) HAMSTERS

CAGE # 23

UNTREATED - LANSING VIRUS 1:100

CAGE # X

UNTREATED - LANSING VIRUS 1:100

ARRIVAL WEIGHTS PREINOCULATION WEIGHTS

5/23

5/25

20 gm.	24 gm.
20 gm.	25 gm.
20 gm.	25 gm.
20 gm.	26 gm.
20 gm.	28 gm.
23 gm.	29 gm.
25 gm.	31 gm.
26 gm.	31 gm.
27 gm.	32 gm.
31 gm.	35 gm.

AVG. WT.

23.2

AVG. WT.

28.6

ARRIVAL WEIGHTS PREINOCULATION WEIGHTS

18	24
19	27
20	27
21	28
23	28
26	30
26	32
27	32
30	35
31	35

AVG. WT.

24.1

AVG. WT.

29.8

CAGE # 63

TREATED 5mg. cortisone - LANSING VIRUS 1:100

CAGE # 55

TREATED 5mg. cortisone - LANSING VIRUS 1:100

ARRIVAL WEIGHTS PREINOCULATION WEIGHTS

19	26
21	27
22	27
26	30
27	30
28	31
28	32
28	33
28	33
29	35

AVG. WT.

25.6

AVG. WT.

30.4

ARRIVAL WEIGHTS PREINOCULATION WEIGHTS

19	21
21	24
22	24
23	26
23	27
25	28
27	29
28	30
29	31
29	31

AVG. WT.

24.6

AVG. WT.

27.1

STANDARD B & P "NOIFEAR"

STANDARD B & P "NOIFEAR"

"Cincinnati" (Lakewood Hamster Colony) Hamsters

UNTREATED — LANSING VIRUS 1:100

STANDARD

STANDARD B & P "NOISEAR"

HAMSTER No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Cage 23	1	-	-	-	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	5
	2	-	-	-	-	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	6
	3	-	-	-	-	T _{SAL}	T _{SAL}	T _{SAL}	T _{SAL}	T _{SAL}	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	6
	4	-	-	-	-	-	-	-	P	P	D																		7
	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	P	P	P	P	P	P	P	P	P	P	18	
	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9	-	-	-	E	P	P	P	w	w	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
	10	-	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	2
Cage X	11	-	-	-	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	4
	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Average wt. 29.2 30.7 32.6 35.1 37.5 38.6 39.9 40.5 41.1 42.6 43.1 39.5 43.6 45.1 44.1 46.5 48.7 46.8 63.7 65.6 67.8 70.2 69.5 72.8 72.2

MORBIDITY = 8/20 = 40%

MORTALITY = 4/20 = 20%

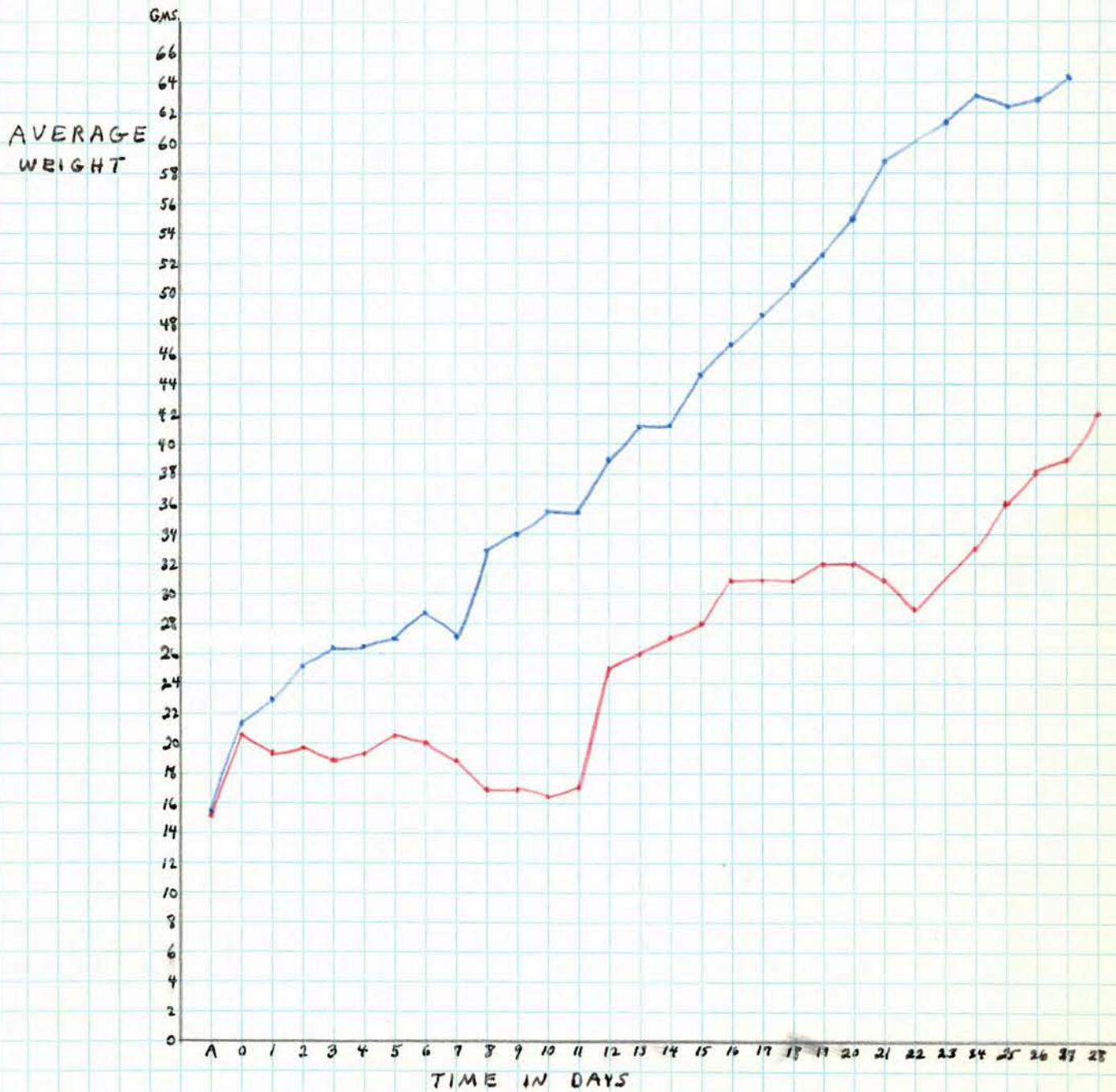
TRANSIENT PAR. = 1/8 = 12.5%

6.6

6.6

EFFECT OF CORTISONE ON POLIOMYELITIS IN "SHWARTZMAN" (BREEDING AND LABORATORY INSTITUTE) HAMSTERS (5-25-51)

—●— - untreated controls - 19 hamsters } LANSING
 —●— - cortisone - 20 hamsters } 1:100



	Time (Days)	Paralyzed (Cumulative)		Dead (Cumulative)	
		controls	cortisone	controls	cortisone
	0	0	0	0	0
	1	0	1	0	0
	2	0	2	0	0
	3	4	7	1	1
	4	5	7	1	1
	5	7	5	1	5
	6	10	7	2	8
	7	10	6	2	9
	8	9	5	4	12
	9	9	4	4	13
	10	9	3	4	14
	11	9	4	4	15
	12	8	1	5	16
	13	8	1	5	17
	14	8	1	5	17
	15	7	1	5	17
	16	7	1	5	17
	17	7	1	5	17
	18	7	1	5	17
	19	7	1	5	17
	20	7	1	5	17
	21	7	1	5	17
	22	7	1	5	17
	23	7	1	5	17
	24	7	1	5	17
	25	7	1	5	17
	26	7	0	5	17
	27	7	0	5	17
	28	7	0	5	17

EFFECT OF CORTISONE ON NORMAL WEIGHT CURVE
OF HAMSTERSPURPOSE:

To determine the effect of one injection of 5 mg of cortisone (i.m.) on the normal weight curve of immature hamsters.

PROCEDURE:

All hamsters were weighted individually on arrival and prior to injection with cortisone. The weight of each animal was followed daily.

HAMSTERS:

Lakeview Hamster Colony. Males from 17 to 25 gm.
Arrived 6/11/51.

CORTISONE:

Cortisone acetate - Merck Lot No. 1322. 25 mg per ml. Contained suspending agents and 1.5% benzyl alcohol. 0.2 ml of 5 mg given i.m.

LAKEVIEW HAMSTER COLONY HAMSTERS

NORMAL UNINOCULATED HAMSTERS

HAMSTER NO.	A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
CAGE # X	1	19	22	24	27	29	31	33	35	37	41	44	43	43	44	46	48	50	50	53	56	55	56	57	57	59	61	61	64	63	65	67
	2	21	24	26	29	32	33	35	37	39	41	43	43	44	46	48	50	52	52	55	54	55	55	57	59	59	61	63	63	65	67	
	3 ^v	20	22	24	27	31	34	37	41	43	47	49	51	52	56	58	60	65	68	72	71	73	73	74	78	78	80	84	84	87	90	
	4	25	28	30	34	37	39	42	46	48	50	54	56	58	59	60	64	66	69	72	69	70	72	73	75	76	78	81	81	85	88	
	5 ^v	18	20	21	26	28	29	32	35	36	40	43	44	45	49	51	54	55	58	61	61	64	64	66	66	68	70	73	74	76	78	
	6 ^v	18	19	21	24	28	30	31	33	35	38	42	42	43	46	48	50	52	55	58	59	58	58	59	61	62	62	66	66	68	70	
	7	18	20	20	24	28	30	32	35	36	38	41	43	43	45	46	51	53	55	57	57	57	59	59	62	64	65	66	67	69	71	
	19	21	23	24	27	29	31	33	35	36	38	41	41	40	43	44	45	47	50	51	49	48	48	52	53	54	54	58	62	60	61	
	10	19	21	23	27	31	32	35	39	41	44	49	50	51	53	55	57	58	63	67	65	65	68	70	71	73	73	75	73	75	77	
	12 ^v	20	22	23	27	31	33	34	36	38	40	43	43	42	46	47	48	50	51	54	53	54	56	57	58	60	61	63	62	64	66	
Average Wt.		20.5	22.2	22.6	22.2	20.4	32.2	34.4	35.2	38.9	41.7	44.9	45.6	45.9	48.8	52.4	52.9	54.8	57.4	61.3	59.1	57.6	61.0	62.4	64.2	65.5	66.5	69.3	67.9	71.5	73.5	

HAMSTERS INOCULATED WITH SOME CORTISONE ONLY

CAGE # 44	14	23	26	25	26	26	27	27	29	31	33	38	39	41	44	40	49	53	56	61	61	63	66	68	70	71	72	75	74	75	76
	15	17	19	19	20	20	21	21	23	25	27	31	33	34	37	38	41	44	45	48	48	48	50	51	51	53	54	54	56	57	
	16	17	18	17	19	19	19	20	22	24	27	28	30	33	34	37	40	42	45	45	44	44	44	46	51	51	53	54	56	57	
	17	19	22	22	23	24	25	25	26	28	31	34	37	37	40	43	45	48	50	54	54	54	57	59	60	61	62	65	64	67	67
	21	18	19	19	20	20	21	22	23	25	27	30	34	34	37	40	43	46	48	52	52	52	53	55	56	58	60	63	63	66	68
	20	19	20	21	23	23	24	25	27	29	32	34	35	38	40	43	46	49	52	49	46	53	56	58	60	60	63	62	63	65	
	22	17	19	19	20	20	21	21	22	24	26	30	32	33	37	38	41	44	46	49	50	50	52	54	55	57	58	60	59	61	65
	23	20	21	20	22	23	23	24	26	28	32	33	36	36	39	40	43	46	46	50	49	50	50	52	53	53	54	58	57	60	61
	24	19	21	21	22	23	25	24	26	28	29	32	35	35	39	41	44	48	49	54	54	55	58	59	62	63	66	66	68	70	
	25	20	21	20	21	22	23	23	23	25	26	30	32	32	33	37	40	43	47	51	53	55	58	62	62	63	65	68	68	71	72
Average Wt.		18.9	20.6	20.3	21.6	21.0	22.9	23.2	24.3	26.3	28.4	32.7	34.0	34.0	37.4	38.7	42.7	44.2	45.8	47.8	51.6	51.7	53.9	55.1	57.2	58.7	59.8	62.5	62.1	64.3	65.8

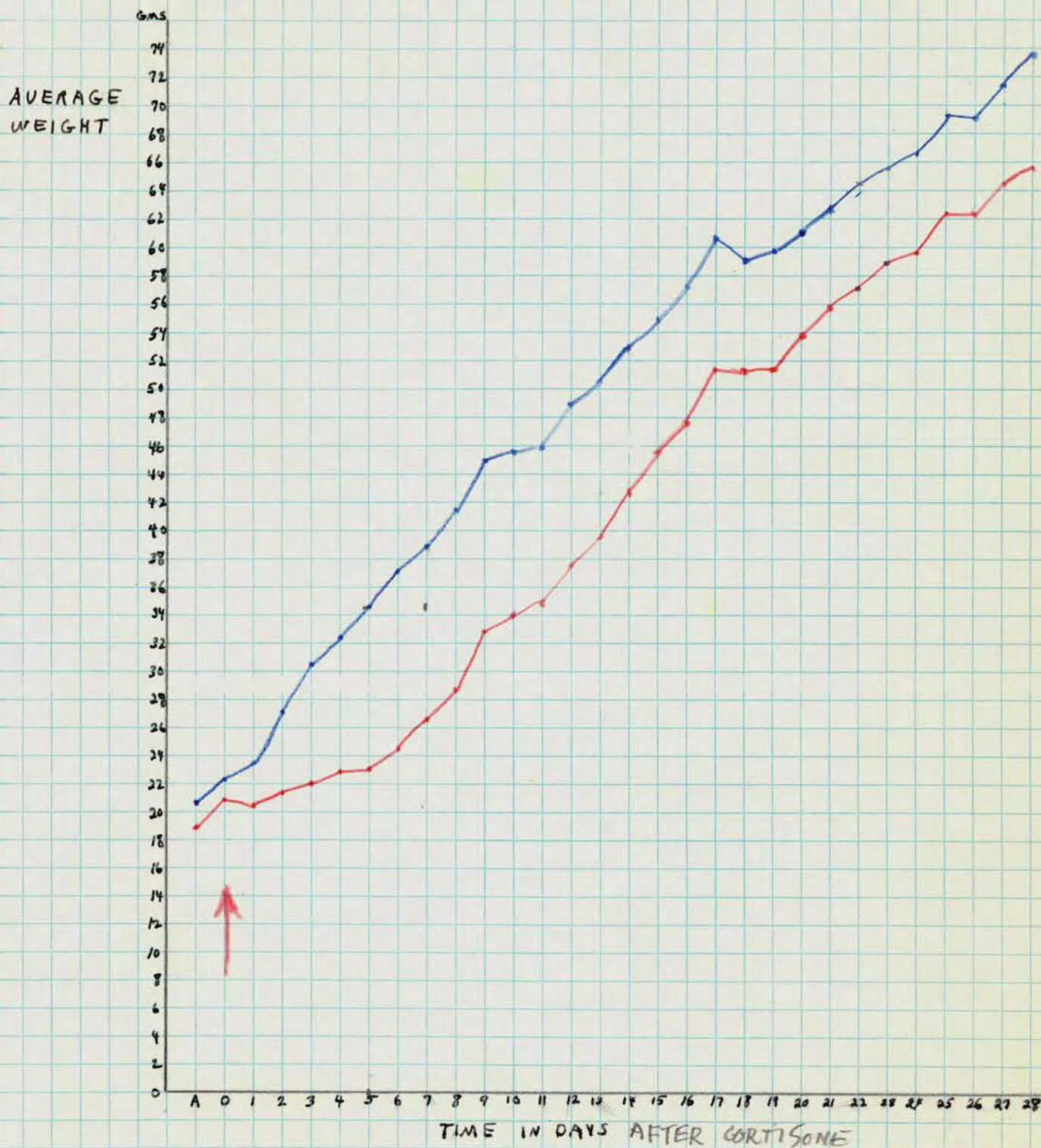
JUN 12 1951

STANDARD B & P "NOTEAR"

STANDARD B & P "NOTEAR"

EFFECT OF CORTISONE ON NORMAL WEIGHT CURVE OF HAMSTERS
(6/12/51)

—●— - Untreated - 10 hamsters
—●— - cortisone - 10 hamsters



THE EFFECT OF THREE DIFFERENT PREPARATIONS OF
CORTISONE ON THE SUSCEPTIBILITY OF LAKE VIEW HAMSTERS
TO LANSING VIRUS

PURPOSE: To determine if different preparations of cortisone vary in their effectiveness in producing increased susceptibility of hamsters to Lansing virus.

CORTISONE:

- (1) CORTISONE ACETATE - LOT # 1322 25 mg./ml.
Containing added suspending agents and 1.5% benzyl alcohol.
- (2) CORTISONE ACETATE - LOT # 131 5 mg./ml.
Containing added suspending agents and 1.5% benzyl alcohol.
- (3) CORTISONE SUSPENSION IN SALINE LOT # 51-R-1038
5 mg./ml.

PROCEDURE: The animals were divided into three groups of twenty. Each group receiving 5 mg. of cortisone intramuscularly. Group I received 0.2 ml. of Lot # 1322 in the left hind leg. Group II was inoculated with Lot # 131 - 0.5 ml into each hind leg. Group III was inoculated with Lot # 51-R-1038 - 0.5 ml into each hind leg. These animals plus an additional twenty hamsters which had no treatment whatsoever were then inoculated intracerebrally with 0.05 ml. of Lansing virus 1:100 dilution.

VIRUS: Lansing virus: Pool IV of 2/15/51. 10% suspension in saline. Centrifuged 10 minutes at 2000 rpm to remove flocculent ppt.

HAMSTERS: Lakeview Hamster Colony hamsters males.

*Note - The hamsters which were inoculated with Lot # 131 (5 mg./ml.) went into what appeared to be a state of anaesthesia within 5 minutes after the inoculum and remained in this state for 30 minutes. There was no visible reaction to the other lots of cortisone.

JUN 18 1951

LAKEVIEW HAMSTER COLONY HAMSTERS

CORTISONE 1ml. of a 5mg. PREPARATION - I.M. - 1.5% BENZYL ALCOHOL AND SUSPENDING AGENTS - LOT # 131 + LANSING VIRUS 1:100

HAMSTER No.	A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
67	19	22	21	22	23	23	26	27	27	28	30	34	35	36	41	43	44	47	49	51	52	55	56	58	59	58	60	62	64	65	
126	20	23	22	23	24	24	27	27	28	27	28	32	32	34	39	42	42	47	48	46	46	52	51	52	53	52	52	53	55	56	
69	23	29	24	25	26	26	29	29	28	25	24	27	29	28	21	34	37	39	41	43	44	48	50	52	54	52	56	56	60	60	
70	18	23	21	21	22	20	19	17	16	14	12	12																			
71	19	22	22	22	20																										
72	23	28	26	27	27	27	27																								
73	15	18	18	18	19	16	15																								
74	17	21	20	19	20	15	23	22	23	24	27	30	33	34	38	42	45	46	49	52	53	55	55	56	57	58	60	59	61	59	
75	20	24	23	23	23	20	24	20	17	15	13																				
76	23	25	24	25	25	22	26	23	21	22	21	23	23	22	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	
77	14	14	17	17	17	15																									
78	24	27	28	29	29	28	28	25	23																						
79	20	24	22	24	24	25	23																								
80	19	20																													
81	17	20	19	20	21	20	23	23	22	22	22	24	24	23	26	28	30	32	32	34	34	36	37	39	40	42	42	43	45	45	
82	16	19	18	18	19	18	18	15	14																						
83	22	26	26	26	28	28	33	32	29	25	23	23	20	16	16																
84	19	23	22	23	23	22	27	29	33	35	37	41	43	44	47	49	51	53	55	57	57	60	61	62	63	63	64	66	67	66	
85	16	20	18	19	19	17	18	16	15	16	16	17	18	18	19	21	21	22	23	22	22	25	23	25	27	27	27	27	28		
86	21	25	24	25	27	27																									

Average wt. 19.22 18.21 18.22 42.74 8.24 13.34 22.82 22.03 33.02 26.22 28.52 28.33 1.33 5.22 26.32 26.99 6.43 5.44 47.34 76.49 50.52 45.35 1.65 2 54.55 85

% P, cyst D 0 5 16 26 63 63 74 74 79

% D 0 0 0 5 16 32 32 42 42 47 53 53 53 58 58 58 58 63 63 63 63 63 63 63 63 63 63 63 63 63 68

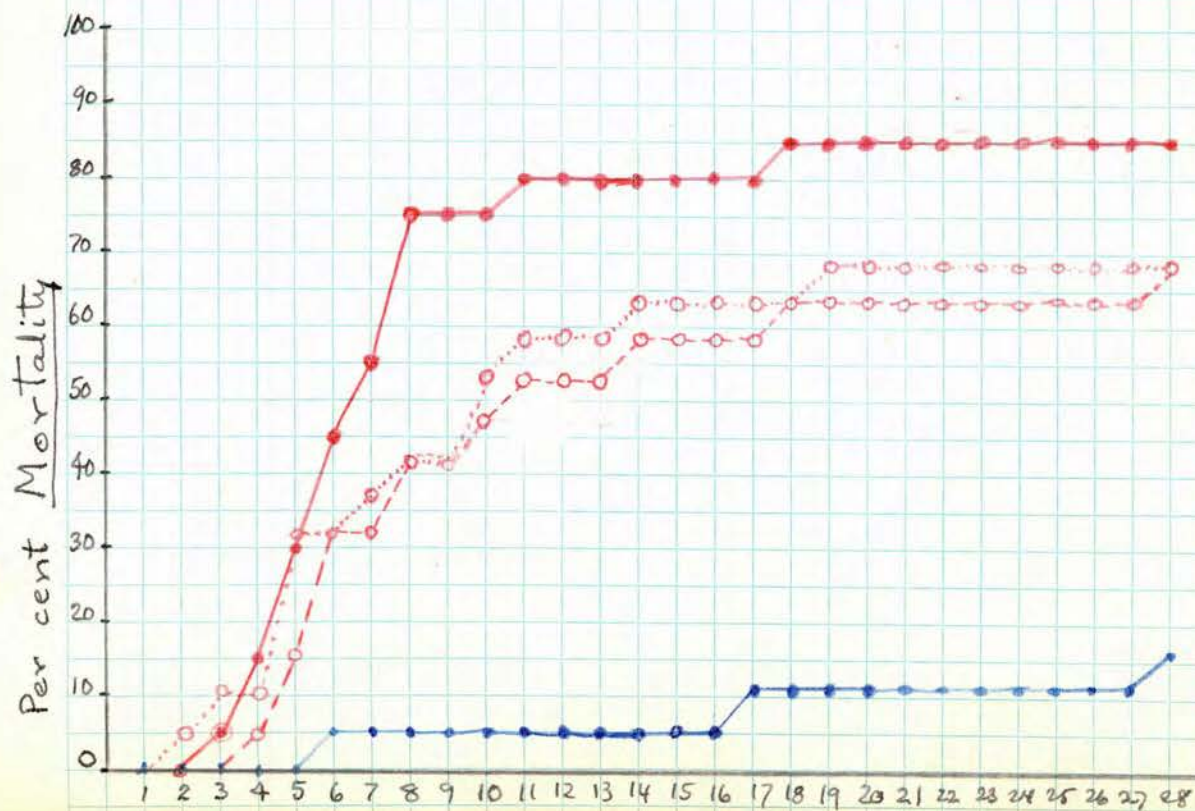
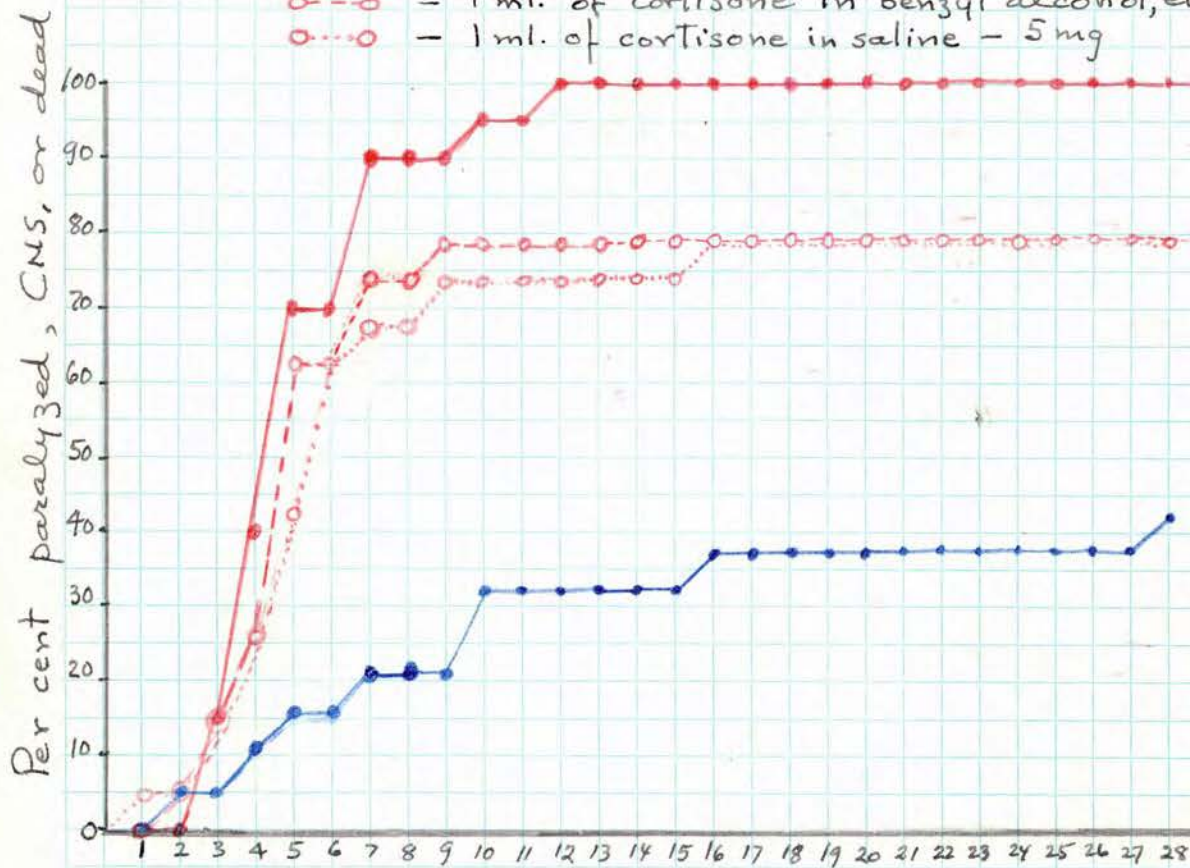
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

A = atonia

Effect of Different Preparations of Cortisone (5mg.) on Lansing Poliomyelitis in Hamsters.

Experiment of **June 19, 1951**
LANSING VIRUS 1:100 Intracerebrally (0.05cc)

- **Untreated** - 20 hamsters
- - 0.2ml. of cortisone in benzyl alcohol etc. - 5mg - 20 hamst.
- - -○ - 1ml. of cortisone in benzyl alcohol, etc. - 5mg. - 20 "
- · · · ○ - 1ml. of cortisone in saline - 5mg - 20 hamsters



EFFECT OF CORTISONE ON TITER OF LANSING VIRUS IN HAMSTERS

PURPOSE:

To determine the effect of cortisone on the titer of Lansing virus in young hamsters. That is, on the amount of virus required to initiate infection.

PROCEDURE:

Fifty hamsters were inoculated intramuscularly into the left hind leg with 5 mg of cortisone (0.2 ml.) Control group of fifty hamsters received no cortisone. The same serial dilutions of Lansing virus as was used for titration of the virus in adult hamsters were inoculated into these animals. For each dilution there were ten treated animals and ten untreated animals.

CORTISONE:

Cortone acetate. Containing suspending agents and 1.5% benzyl alcohol. Lot #1398.

VIRUS:

Lansing virus: Pool III of 215151. 10% suspension in saline. Centrifuged at 2000 rpm ^{for 10 minutes} to remove flocculant ppt.

HAMSTERS:

100 Lakeview hamsters Male
Weight 13 to 26 grams.

"NORMAL" HAMSTERS + LANSING VIRUS

JUN 28 1951

Hamster No. cage #1	A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
127	20	22	24	27	30	31	34	36	38	40	42	43	47	49	51	53	53	56	56	58	56	58	59	60	63	62	63	65	64	66
128	17	18	19	22	26	25	25	25	26	27	29	30	32	33	35	40	39	43	43	44	46	46	48	51	50	49	51	54	56	
129	17	20	20	23	27	26	26	28	29	31	35	38	42	45	48	52	52	55	57	60	62	64	65	66	70	70	72	72	74	76
130	17	19	19	20	22	21	20	22	22	22	26	28	29	30	33	35	35	38	38	39	37	36	33	31	33	32	30	32	37	38
131	18	21	22	25	27	25	26	28	30	32	34	37	41	43	46	47	49	52	52	54	52	54	53	55	57	56	56	57	59	61
132	15	17	18	21	24	21	20	19	19	19	20	22	25	27	28	30	31	32	33	34	32	31	28	30	32	33	32	32	34	36
133	13	15	16	18	21	21	23	25	27	28	32	33	38	40	43	45	46	49	50	52	51	53	54	53	56	57	57	59	61	61
134	18	21	24	26	29	30	30	30	30	33	33	38	38	41	43	45	46	48	50	51	54	55	56	59	58	58	59	58	63	
135	18	22	23	27	30	28	27	29	31	33	35	39	42	43	44	47	49	50	52	54	55	55	56	58	59	58	60	61	63	
136	17	24	23	25	27	26	27	26	25	25	29	30	33	34	38	40	40	43	43	46	46	48	51	52	51	52	52	51	55	
Aug. wt.	170	196	210	224	263	254	258	262	275	285	313	329	365	381	406	429	432	476	470	489	498	498	498	650	663	528	537	531	555	569
% Par, CNS, or Dead	0	10	20	50	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	
% Dead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

VIRUS 10-1

4
5
4
2
4
5
3
5

Hamster No. cage #1	A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
137	15	17	17	19	22	21	23	26	27	29	32	35	38	40	41	44	46	48	50	51	52	55	54	55	57	55	56	58	60	62	
138	17	19	20	24	27	27	29	31	33	35	38	38	41	44	46	47	49	52	53	55	55	57	58	61	63	63	63	65	67	68	
139	16	17	18	21	24	23	25	28	30	32	35	37	41	42	46	48	53	53	54	57	58	60	61	63	66	66	66	67	69	71	
140	18	20	22	25	29	29	32	32	31	31	33	34	37	40	45	46	48	52	54	57	58	59	59	62	64	65	66	68	69		
141	18	22	22	27	30	31	34	36	39	42	47	48	53	54	60	63	65	68	70	72	75	76	77	78	80	81	83	83	86	87	
142	15	17	19	22	25	26	26	27	28	29	32	34	37	39	41	43	45	47	48	49	48	48	46	48	49	49	50	47	51		
143	16	18	18	21																											
144	15	17	18	20	21	17	14	15	15	15	16	17	19	20	21	23	24	25	24	23	24	27	26	27	27	27	26	26	30	30	
145	19	20	23	26	29	27	25	25	24	25	28	30	34	34	35	38	40	42	43	45	44	46	43	47	48	46	45	45	50	51	
146	16	18	20	22	25	24	26	27	27	32	35	37	39	39	44	46	49	52	53	56	57	59	61	62	64	63	64	66	67	68	
Aug. wt.	165	185	197	222	258	249	260	271	284	300	314	344	365	394	421	441	466	488	499	517	523	541	539	559	529	575	565	593	605	619	
% Par, CNS, or Dead	0	0	10	30	30	40	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50		
% Dead	0	0	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28			

VIRUS 10-2

4
7
6
3
4

"NORMAL" HAMSTERS + LANSING VIRUS

JUN 28 1951

HAMSTER NO.	A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Cage # 2																																
147	16	18	20	23	27	28	32	35	38	40	43	47	51	54	56	60	61	65	65	67	69	71	73	75	73	75	77	78	78	79		
148	16	19	20	23	27	28	31	34	37	38	42	45	49	57	55	59	60	61	62	64	66	68	69	70	69	71	72	74	75	77		
149	17	17	20	22	26	27	30	32	34	36	38	40	44	47	50	53	55	57	58	60	62	64	66	67	67	65	67	70	69	72		
VIRUS																																
10-3																																
150	26	26	29	33	36	37	40	43	46	47	49	52	54	57	59	61	62	64	64	65	65	67	67	69	67	69	71	72	70	73		
151	18	20	22	25	28	30	33	36	39	40	43	46	50	52	55	58	58	60	62	62	65	67	68	67	66	68	67	69	68	71		
152	20	24	26	30	33	32	33	34	32	32	34	38	40	42	46	51	49	50	49	47	44	44	41	40	39	38	37	36	37	42		
153	19	22	24	26	30	32	35	39	43	43	48	51	55	57	62	66	66	68	72	72	73	77	77	78	77	81	82	84	84	86		
154	21	24	27	29	33	35	38	40	44	44	48	51	55	56	60	64	66	69	69	71	71	75	76	77	75	77	79	81	79	84		
155	18	22	24	26	29	30	33	35	37	38	40	41	45	47	49	51	52	53	54	55	54	56	57	57	56	57	60	61	62	64		
156	22	24	27	29	32	35	38	41	45	47	49	53	57	59	63	65	67	68	69	71	71	75	75	76	77	75	78	79	78	80		
Avg. wt.	19.3	21.6	23.9	26.6	30.1	31.4	35.4	36.9	39.5	40.6	43.7	46.4	52.0	52.2	55.5	58.6	59.6	61.2	62.4	63.4	64.0	66.4	66.9	67.6	66.6	67.7	66.9	67.4	70.0	72.6		
% Par., cns, or Dead	0	0	0	0	0	0	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
% Dead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

6

Cage # 2	A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
YELLOW																															
157	20	23	25	28	31	30	33	35	37	38	42	44	47	49	52	54	53	57	56	57	58	60	61	63	60	62	63	64	66	67	
158	23	26	28	31	35	36	39	42	46	45	48	50	54	52	58	61	61	63	62	65	65	69	70	71	69	71	73	75	77	73	
159	20	24	25	28	32	33	35	39	41	42	44	46	50	53	56	58	59	61	62	63	65	67	68	69	67	68	70	71	70	72	
160	24	27	29	34	38	39	43	47	50	53	56	60	64	67	70	74	76	78	80	81	84	87	88	90	88	91	93	94	93	95	
VIRUS																															
10-4																															
161	20	24	26	29	33	34	37	40	42	43	46	45	44	42	40	38	38	39	37	40	42	45	46	46	45	45	46	46	48	50	
162	18	21	23	26	30	32	34	37	40	42	44	47	50	52	56	60	60	60	62	62	62	65	65	66	66	67	68	70	70	73	
163	18	20	22	25	28	29	32	34	36	37	40	42	45	47	48	53	54	56	57	58	59	61	62	64	62	63	64	64	67	68	
164	17	20	22	24	27	28	30	32	35	36	37	40	43	44	48	49	50	53	53	54	54	56	57	58	55	58	58	59	61	64	
165	22	25	28	31	35	36	38	41	44	45	48	51	54	58	60	64	64	65	68	67	69	70	71	70	70	71	72	74	76	76	
166	17	19	21	24	27	29	31	34	36	37	39	42	45	47	50	52	53	56	56	57	57	61	62	62	60	61	61	63	62	64	
11.9	22.9																														
Avg. wt.	19.9	22.9	24.9	28.0	31.6	32.5	33.8	34.0	37.4	38.4	43.6	46.7	49.6	51.1	53.8	56.3	56.8	58.8	59.6	60.4	61.5	64.1	65.0	65.9	64.2	65.7	66.9	68.0	68.4	70.2	
% Par., cns, or Dead	0	0	0	0	0	0	0	0	0	0	0	0	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
% Dead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

12

"NORMAL" HAMSTERS + LANSING VIRUS

HAMSTER NO. A 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Cage #3

167 18 22 24 26 31 32 34 38 39 41 44 46 50 52 55 57 59 61 63 66 67 68 70 72 75 77 79 78 80 81

168 17 21 22 26 30 31 35 38 40 42 44 45 50 52 55 59 53 59 66 65 68 67 68 69 70 73 74 76 77 79

169 18 23 23 27 30 32 34 37 38 39 44 46 50 51 54 56 55 58 62 61 63 65 65 67 68 70 70 73 72 72

170 15 17 18 21 25 28 31 34 36 39 41 42 45 47 49 51 57 53 56 56 57 60 62 62 65 65 66 68 70 67

VIRUS

171 14 19 19 23 26 28 32 35 37 40 42 43 47 47 52 55 54 58 63 63 65 66 67 69 69 71 72 75 74 75

10-5

172 19 24 24 27 30 32 37 39 41 42 46 48 52 54 57 60 60 64 70 69 69 71 72 74 74 76 76 76 77 78

173 16 18 21 24 28 29 33 35 37 39 43 45 49 50 55 56 57 61 64 66 67 70 72 73 75 76 76 78 78 78

174 18 22 24 26 31 33 37 39 43 44 49 57 55 57 60 64 64 66 72 71 73 77 78 78 81 81 82 83 85 85

175 16 18 21 24 28 28 33 35 36 38 41 42 47 48 51 53 52 55 59 59 60 61 62 63 64 65 67 68 70 70

176 15 18 19 21 25 27 31 32 35 37 39 41 45 47 50 52 57 54 58 60 60 63 65 66 67 68 69 70 70 72

Avg. wt. 16.6 20.0 21.5 24.5 28.4 31.0 32.7 36.2 38.2 40.4 33.4 49.9 49.0 50.5 53.8 56.3 56.2 58.9 63.3 63.6 65.0 66.7 68.3 69.3 70.8 71.9 72.9 74.5 75.6 75.9

% Par., CNS, or Dead 0

% Dead 0

$PD_{50} = 10^{-2.1}$

$LD_{50} = < 10^{-1.0}$

TREATED WITH CORTISONE - 5mg - I.M. + LANSING VIRUS

HAMSTER NO.	A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Cage #6																															
217	16	21	18	19	19	19	19	21	22	22	26	28	33	35	37	39	41	43	44	45	45	47	49	50	51	52	53	55	54	55	
218	17	23	18	20	19	19	20	23	24	25	28	30	34	37	38	40	42	43	45	46	46	49	50	53	54	54	55	55	57	58	
219	16	20	18	18	18	19	20	22	23	23	27	29	34	37	40	40	44	47	48	48	50	53	54	56	57	55	58	59	60	61	
220	15	20	18	18	19	19	21	22	22	24	25	23	25	28	30	32	35	37	41	41	42	45	45	47	48	49	50	51	52	53	
VIRUS																															
10 ⁻⁵																															
221	20	24	22	22	22	22	24	27	27	29	32	33	38	40	41	45	46	48	51	52	54	56	56	59	60	60	61	63	62	63	
222	17	21	19	21	20	21	22	23	24	25	28	29	33	36	39	40	43	45	48	49	50	53	55	56	56	58	59	61	62	65	
223	14	17																													
224	16	22	19	21	20	21	22	24	25	26	29	30	34	36	38	40	43	46	48	50	51	53	54	56	58	59	61	62	61	64	
225	17	21	19	19	20	20	21	23	25	26	30	32	37	39	41	44	46	49	52	54	56	57	60	62	62	64	65	67	66		
226	17	21	19	19	19	20	20	22	23	23	26	29	32	34	36	38	39	42	45	46	49	52	53	55	57	57	60	60	58	59	
Avg. Wt.	16.5	21.0	18.8	19.7	18.5	20.0	21.23	23.9	24.7	26.7	29.1	33.3	35.8	37.5	39.8	42.1	44.4	46.9	47.7	49.5	16.5	16.5	17.5	17.5	18.2	18.6	19.0	19.2	19.4		
% Par, CMS, or Dead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Dead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

PD₅₀ = 10^{-3.2}

LD₅₀ = 10^{-3.0}

STANDARD B & P "NOTEPAR"

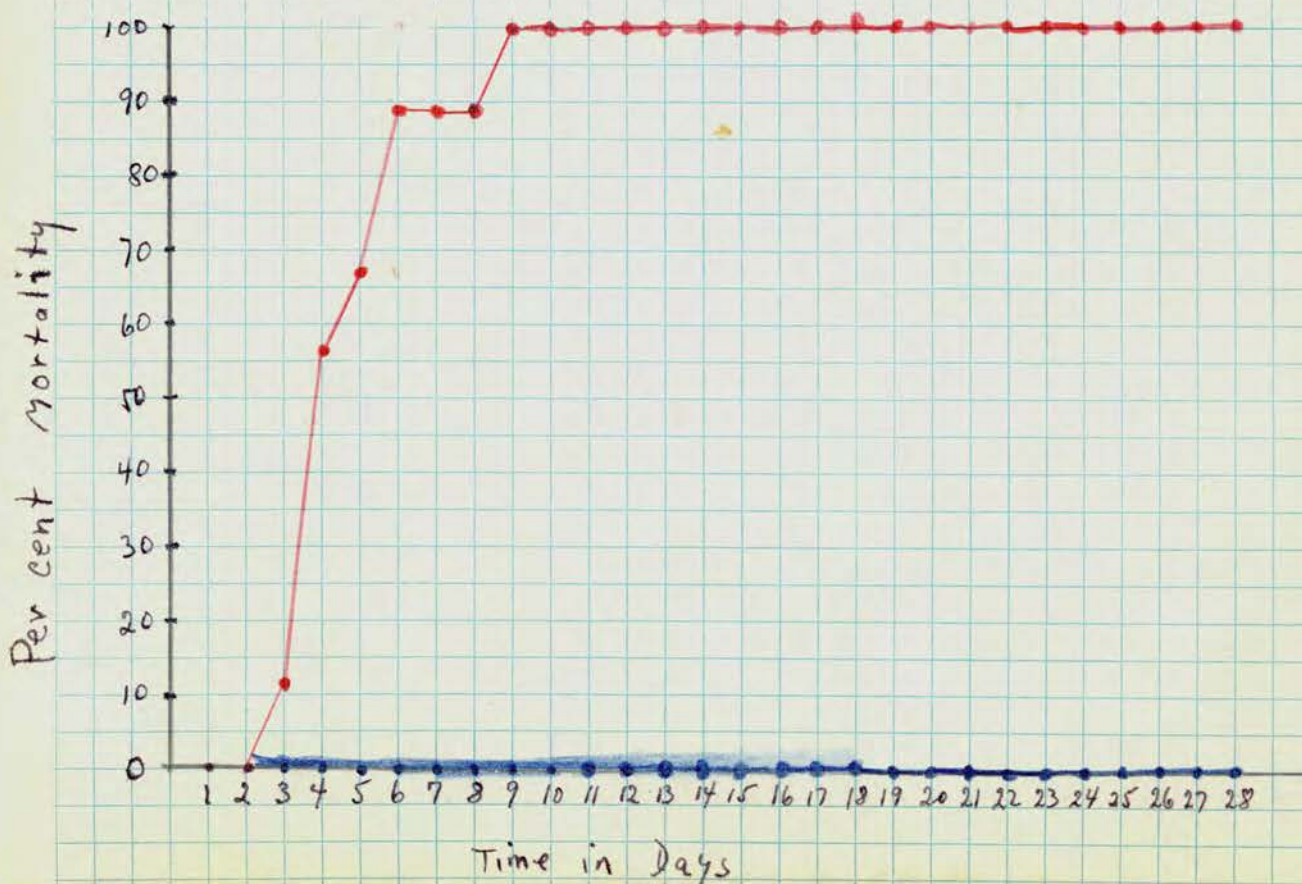
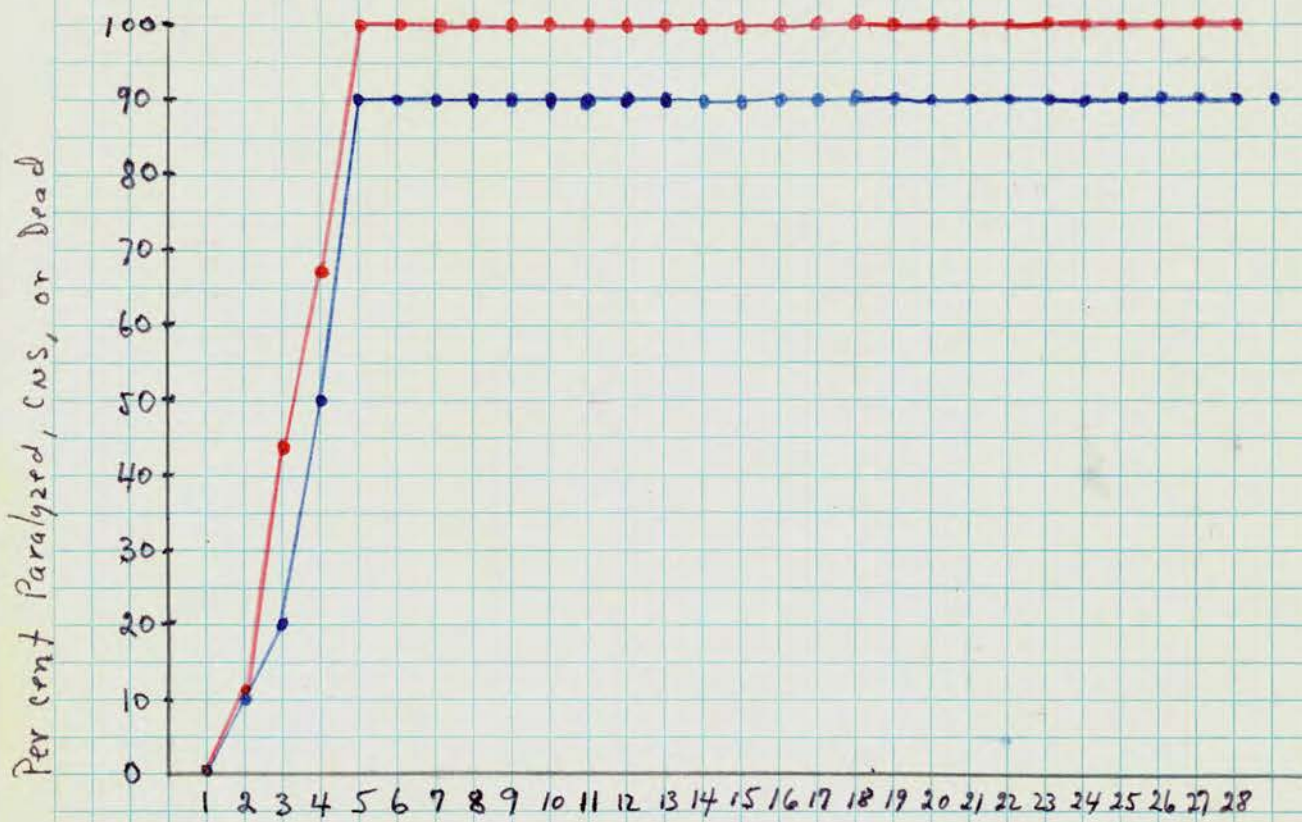
STANDARD B & P "NOTEPAR"

EFFECT OF SINGLE DOSE OF CORTISONE (5MG) ON INFECTION OF IMMATURE HAMSTERS WITH LANSING VIRUS

JUN 28 1951

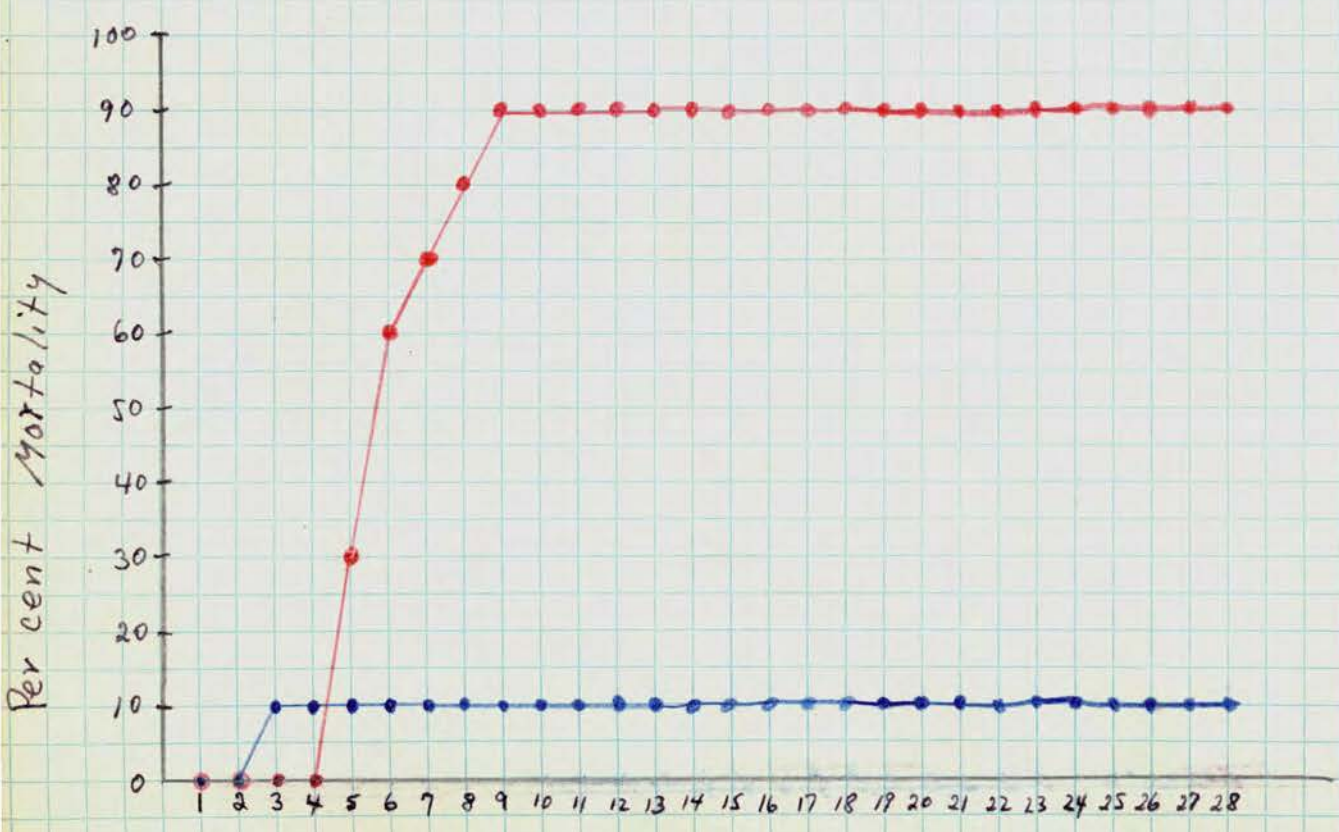
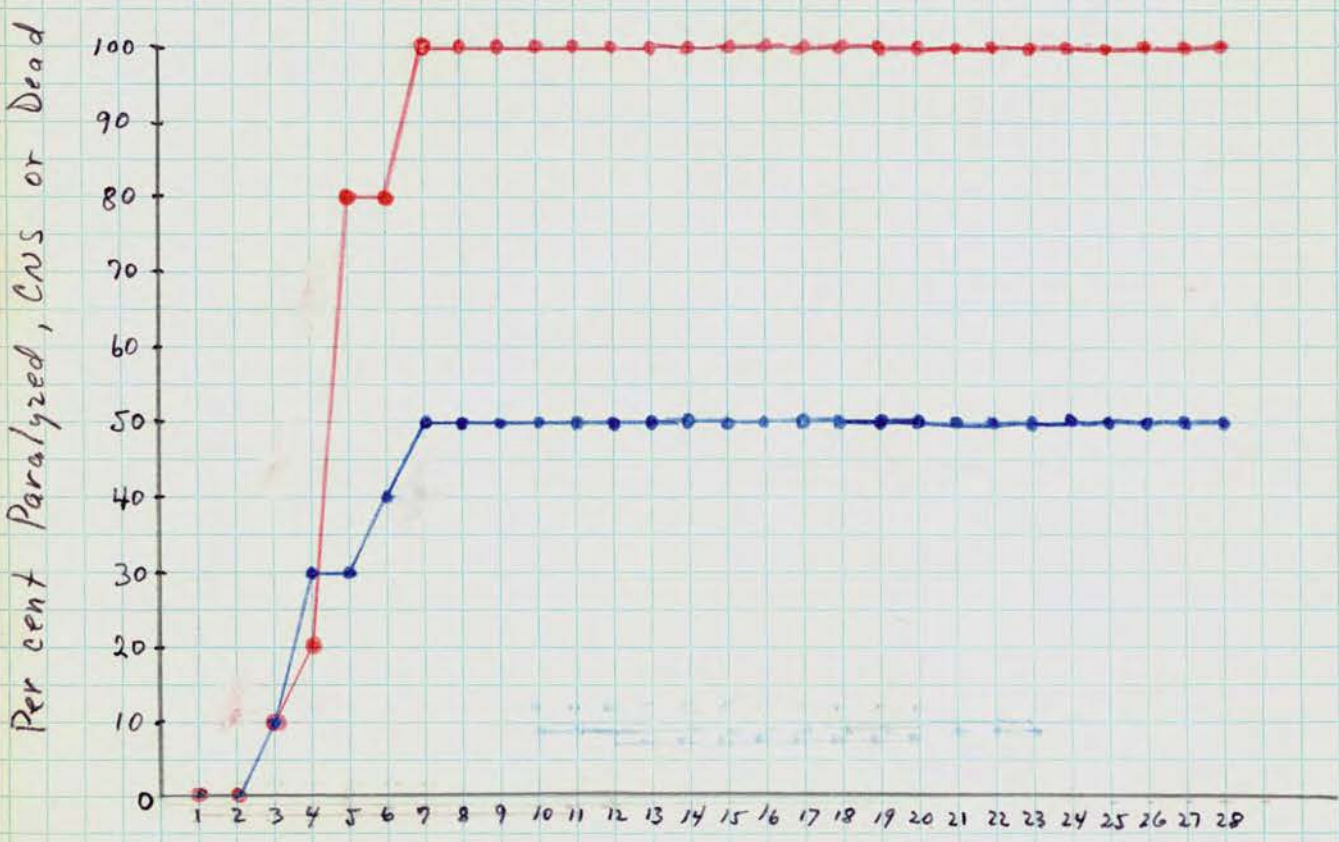
LANSING VIRUS 10^{-1} INTRACEREBRALLY (0.05 ml)

- Untreated — 10 hamsters
- Cortisone — 9 hamsters



LANISING VIRUS 10^{-2} - Intracerebrally (0.05 ml)

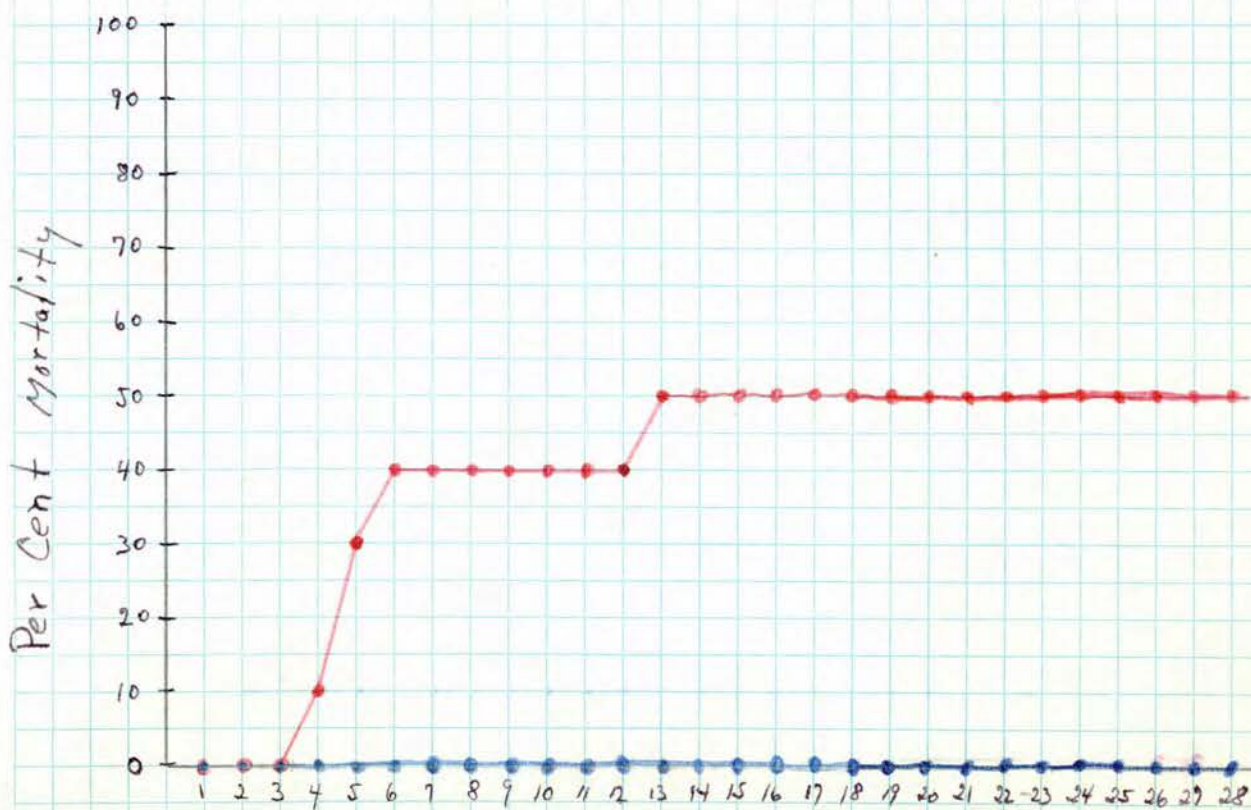
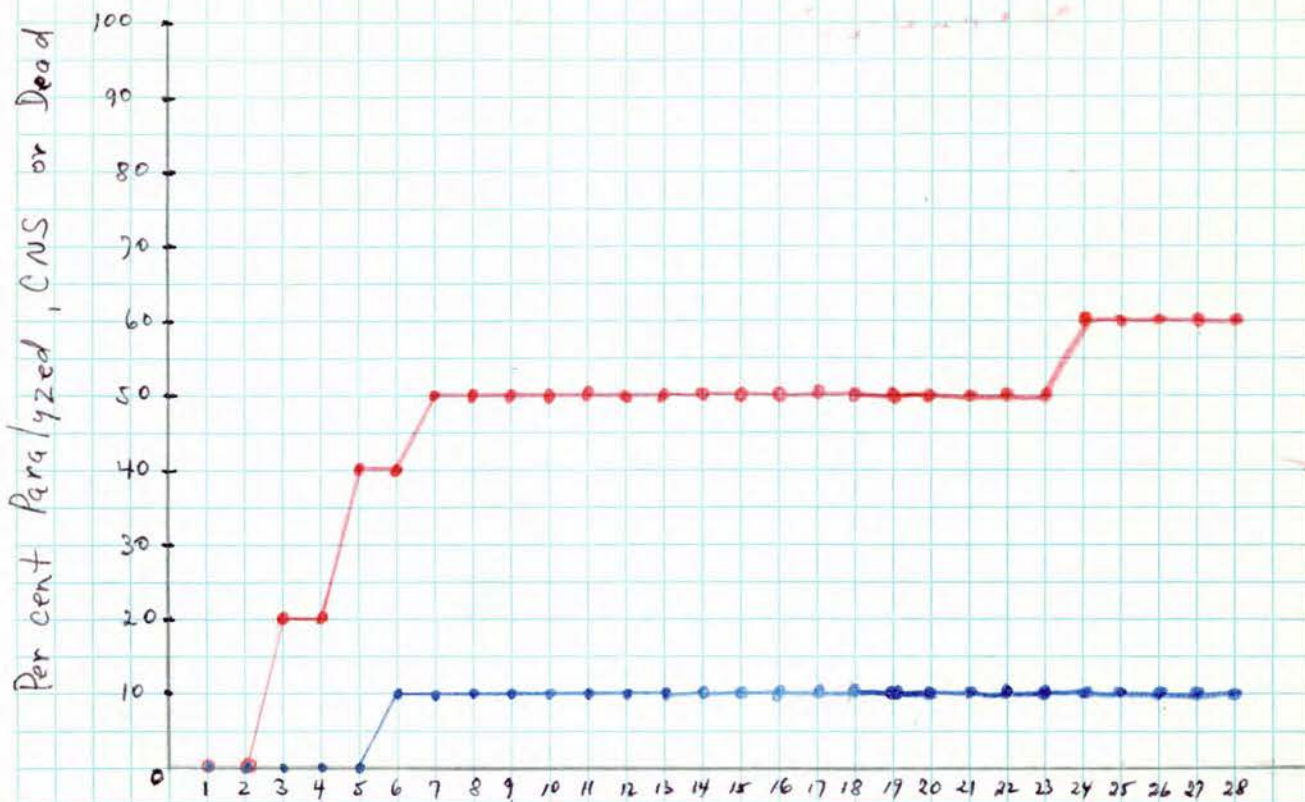
- Untreated - 10 hamsters
- Treated \bar{c} Cortisone - 10 hamsters



Time in Days

LANSING VIRUS 10^{-3} - Intracerebrally (0.05 ml)

- —● Untreated - 10 hamsters
- —● Treated \bar{c} Cortisone - 10 hamsters

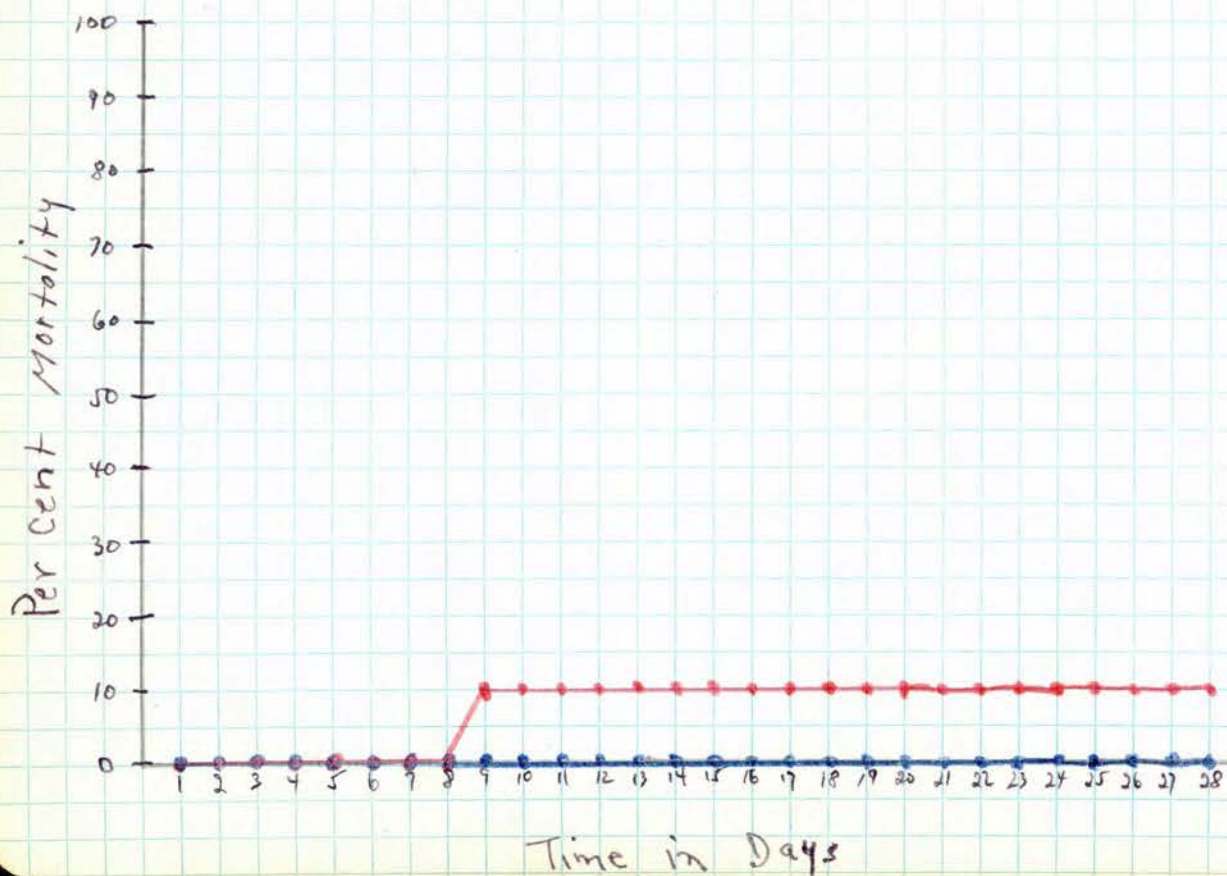
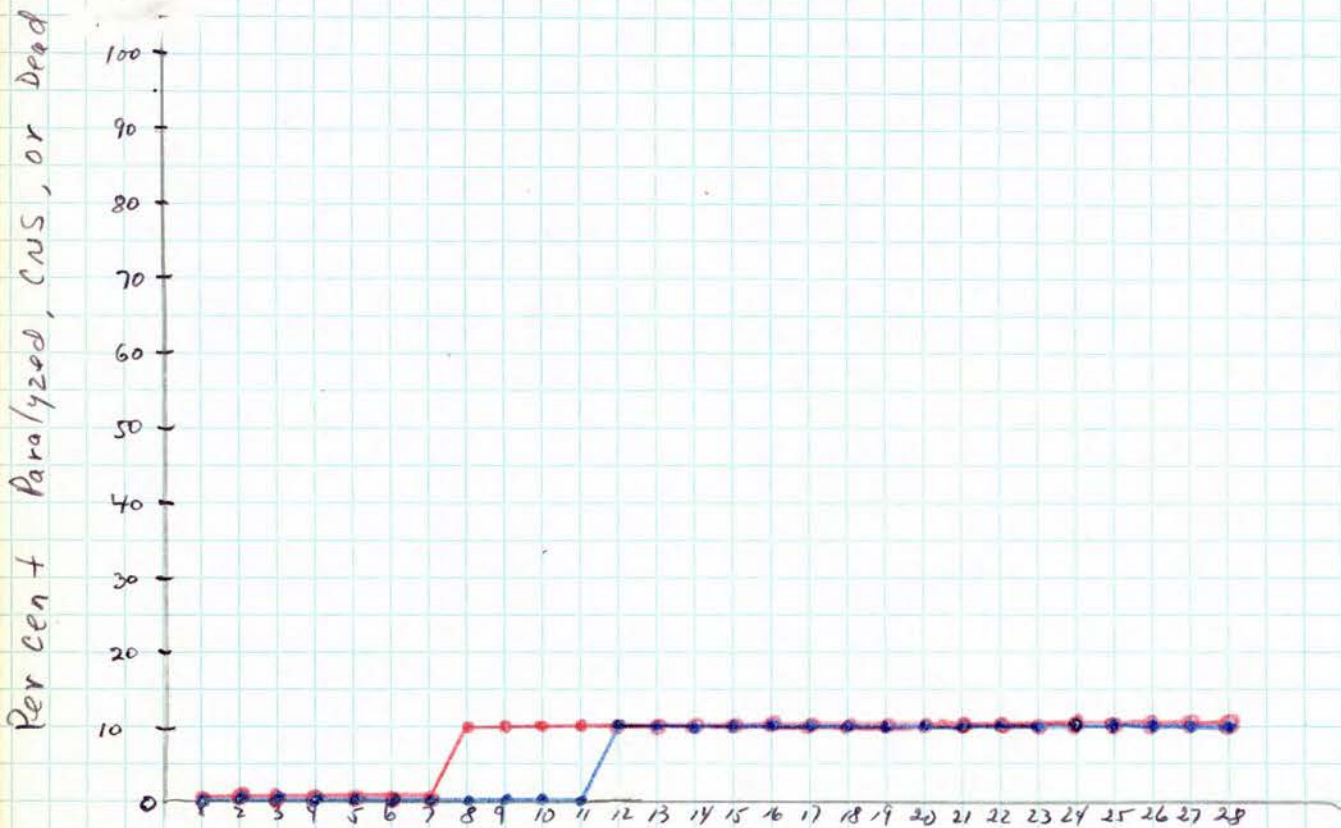


Time in Days

LANSING VIRUS - 10^{-4} - Intracerebrally (0.05 ml)

—●— Untreated - 10 hamsters

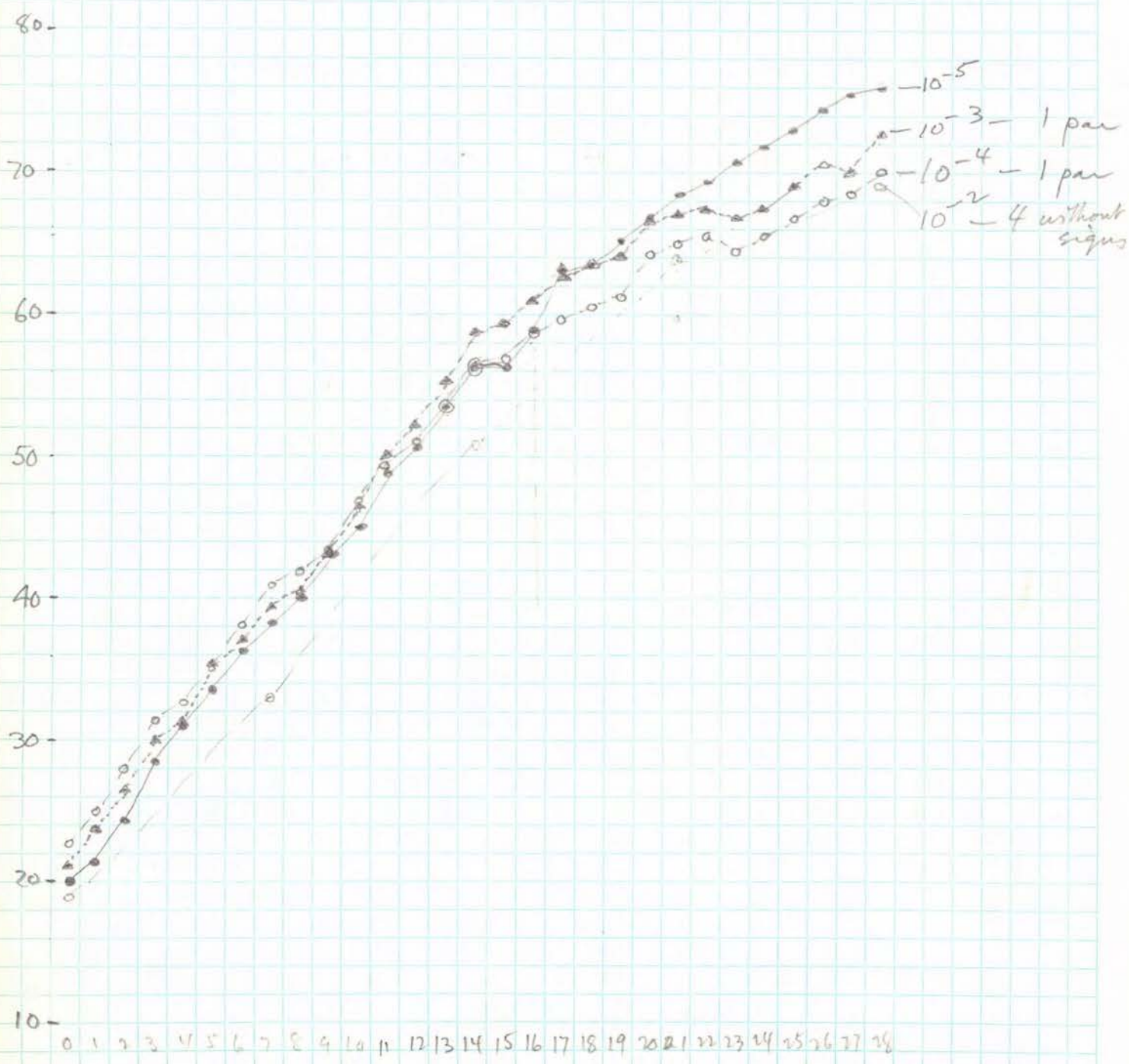
—●— Treated w/ Cortisone - 9 hamsters



TITRATION OF LANSING VIRUS IN ADULT HAMSTERS
 TEST OF JUNE 26, 1951

EFFECT	RESULT AT INDICATED FINAL DILUTION OF VIRUS					REMARKS
	10^{-1}	10^{-2}	10^{-3}	10^{-4}	10^{-5}	
MORBIDITY	7/10	5/9	0/10	0/10	0/10	$PD_{50} = 10^{-1.8}$
MORTALITY	3/10	1/9	0/10	0/10	0/10	$LD_{50} = < 10^{-1.0}$
AVERAGE INCUBATION PERIOD - IN DAYS	4.7	5.8	

Weight of Untreated Hamsters
 Test of 6/26/51



TITRATION OF LANSING VIRUS IN ADULT HAMSTERS

PURPOSE: To determine the titer of Lansing virus in adult hamsters simultaneously with a titration in young hamsters and young hamsters treated with cortisone.

PROCEDURE: Decimal dilutions of Lansing virus from 10^{-1} to 10^{-5} were made in saline. Ten hamsters per dilution. At the same time the young hamsters were inoculated with the same virus. 0.05 ml inoculated intracerebrally.

VIRUS: Lansing virus: Pool VI of 2/5/51. 10% suspension in saline. Centrifuged 2000 rpm for 10 minutes to remove flocculent ppt.

HAMSTERS: 26 males weighing 60-86 grams
 24 females weighing 60-81 grams

ADULT HAMSTERS + LANSING VIRUS

HAMSTER NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Cage #9	229	230	231	234	240	242	243	244	245	247																		
<u>VIRUS</u>																												
<u>10⁻³</u>																												

% Par, CFS, or Dead 0

% Dead 0

Cage #10	25	253	254	257	258	263	264	267	269	271	272																	
<u>VIRUS</u>																												
<u>10⁻⁴</u>																												

% Par, CFS, or Dead 0

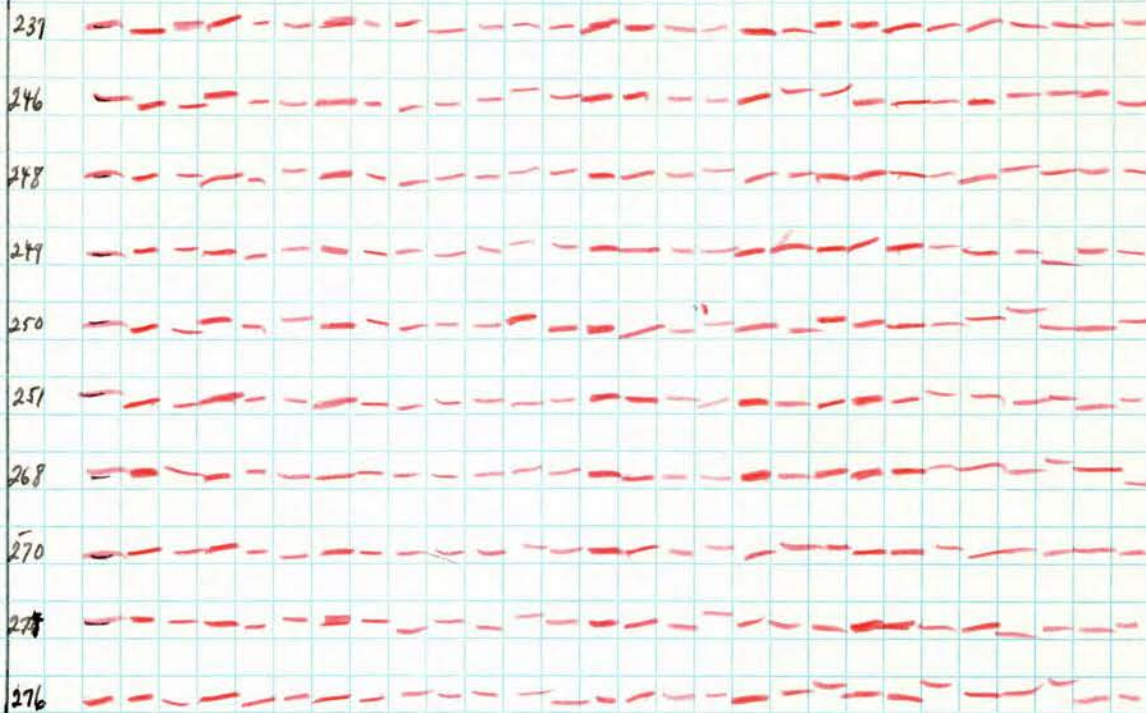
% Dead 0

ADULT HAMSTERS + LANSING VIRUS

HAMSTER NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
 Cage #11

VIRUS

10⁻⁵



att.

% Par., CMS, or Dead 0

% Dead 0

$$PD_{50} = 10^{-1.8}$$

$$LD_{50} = < 10^{-1.0}$$

SUMMARY OF TEST OF JULY 13, 1951

EFFECT OF CORTISONE ON SUSCEPTIBILITY OF ADULT
HAMSTERS TO LANSING VIRUS

GROUP	MORBIDITY	MORTALITY	AVERAGE INCUBATION PERIOD (DAYS)
NORMAL ADULT HAMSTERS USED AS WEIGHT CONTROLS IN EXPERIMENT OF 6/12/51-- GIVEN LANSING VIRUS 1:100 ON 7/13/51	2/10 (20%)	0/10 (0%)	8.5
ADULT HAMSTERS INOCULATED WITH 5mg CORTISONE 6/14/51 GIVEN LANSING VIRUS 1:100 ON 7/13/51 CORTISONE WEIGHT CONTROL 4/9/51	4/10 (40%)	1/10 (10%)	5.7
ADULT HAMSTERS INOCULATED WITH 5mg CORTISONE 7/13/51 LANSING VIRUS 1:100 7/13/51	1/9 (11.9%)	1/9 (11.9%)	7

EFFECT OF CORTISONE ON SUSCEPTIBILITY OF ADULT HAMSTERS TO LANSING VIRUS

PURPOSE

- (1) To determine if a single dose of 5 mg. of cortisone administered to young hamsters will have an effect of increasing susceptibility if these animals are inoculated with Lansing virus 10^{-2} 3 days later, when they are adults.
- (2) To determine if adult hamsters treated with 5 mg cortisone and immediately inoculated with Lansing virus 10^{-2} show an increased susceptibility.

PROCEDURE

Ten ^{normal} adult hamsters, which as youngsters had been used as weight controls in the test of 6/12/51 plus the ~~ten~~ hamsters which had been inoculated with 5 mg cortisone and were used as weight controls in the same experiment were inoculated with Lansing virus 10^{-2} . An additional group of ten adult hamsters of approximately the same weight were inoculated with 5 mg cortisone and immediately inoculated intracerebrally with Lansing virus 10^{-2} .

VIRUS

Lansing virus: Pool VI of 2/5/51. 10% suspension in saline. Centrifuged 10 minutes at 2000 rpm to remove flocculant ppt.

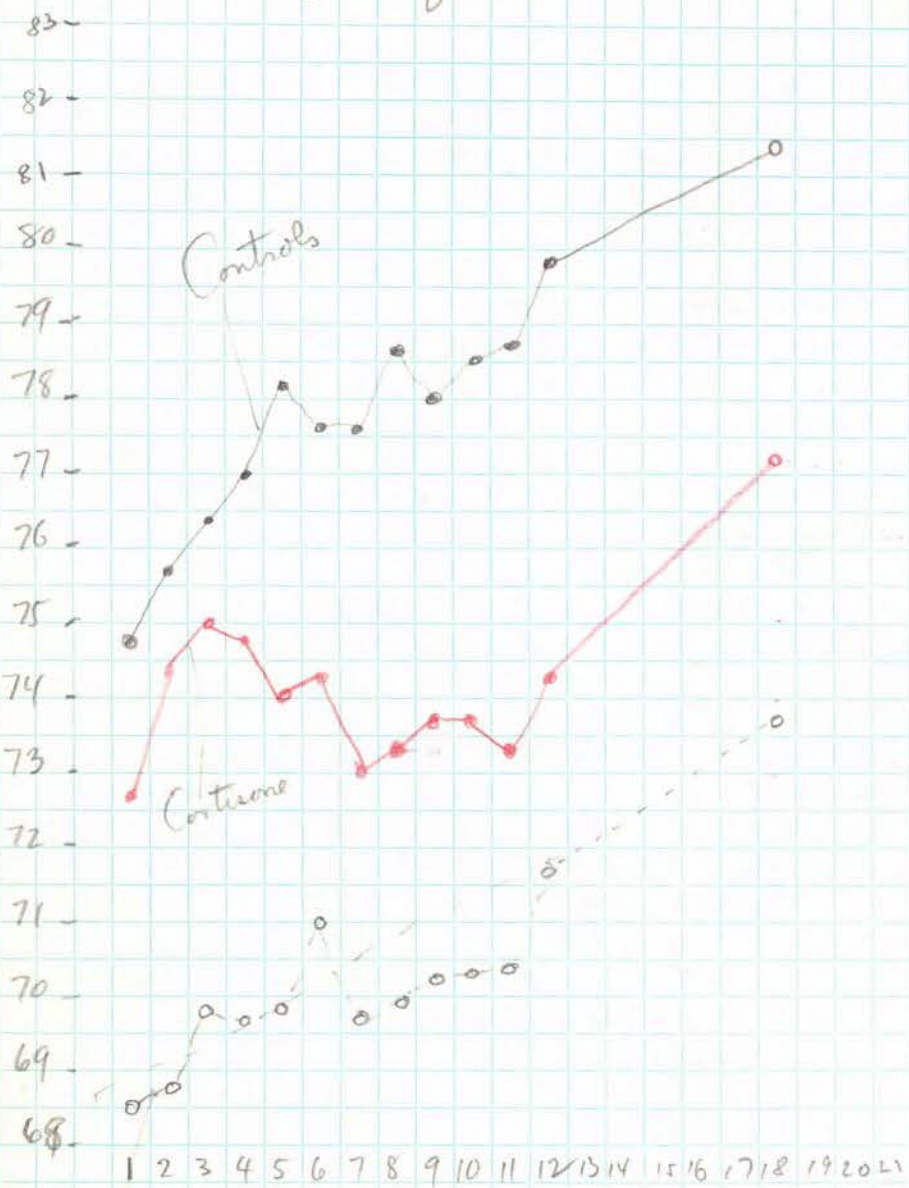
CORTISONE

Cortisone acetate Merck Lot #1398 containing suspending agents and 1.5% benzyl alcohol

HAMSTERS

10 Lakeview Hamster Colony Hamsters Male
Weight 69-77 grams

Weights of Hamsters



old cortisone

OCT 25 1957

THE EFFECT OF CORTISONE ON SUSCEPTIBILITY OF HAMSTERS OF VARIOUS AGES TO LANSING VIRUS

PURPOSE:

- (1) To determine if Cortisone administered to hamsters ranging from babies to adults will have the effect of increasing susceptibility to Lansing infection in all groups. It has previously been shown that both morbidity and mortality is increased when 5 mg cortisone is administered into baby hamsters just prior to inoculation of Lansing 1:100.
- (2) To determine if an extremely large dose of Cortisone (25 mg) will affect the course of Lansing infection in adult hamsters.

CORTISONE:

Cortisone acetate - Lot # O/C 1634. 25 mg/ml.
Containing added "suspending agents" + benzyl alcohol 1.5%

PROCEDURE:

The animals were divided into groups of ~~40~~²⁰ according to age. In each group received ^{5 mg} Cortisone alone until ~~all~~ 40 received ~~the~~ Lansing 1:100 in 0.05 ml amounts I.C. A single group of 20 adults receives Cortisone 25 mg I.M. plus Lansing 1:100. There were three different age groups as described below.

VIRUS:

Lansing ~~was~~ virus. Pool #1 of 2/5/51. 10⁶ suspension in saline. Centrifuged 10 minutes x 2000 rpm to remove flocculent debris.

HAMSTERS:

Laboratory hamster colony hamsters ♂

<u>GROUP:</u>	<u>WEIGHT (Gm)</u>	<u>TREATMENT</u>
A	13-20 (18.6)	LANSING 1:100
B	14-21 (17.7)	CORTISONE (5mg) - LANSING 1:100
C	31-38 (34.7)	LANSING - 1:100
D	29-39 (33.4)	CORTISONE (5mg) - LANSING 1:100
E	63-76 (70.1)	LANSING 1:100
F	61-74 (67.9)	CORTISONE (5mg) - LANSING 1:100
G	63-74 (68.1)	CORTISONE (25mg) - LANSING 1:100

LAKEVIEW HAMSTER COLONY HAMSTERS (11-20 Gm.)

No CORTISONE - LANSING VIRUS 1:100 ONLY

A

HAMSTER NO A 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

277	17 20 23 25 27 30 33 33 35 37 39 41 43 45 49 50 50 53 54 55 57 57 60 62 64 65 68 69 69	
278	16 18 21 23 24 26 23 21 18 17 16 13	
X 279	19 21 25 27 30 32 33 34 36 38 41 42 44 46 50 52 52 55 58 57 60 62 64 66 69 70 72 73 75 75	
280	17 18 21 21 19 18 16 14 13	
X 281	17 18 22 22 22 22 21 20 23 23 22 21 23 24 24 24 25 24 24 25 25 25 26 26 29 32 35 36	
282	17 19 22 23 22 20 18 17 16 13	
X 283	20 22 26 28 31 33 33 33 31 30 34 35 34 37 41 44 46 48 48 49 52 53 55 58 59 60 64 64 67 68	
284	17 20 23 24 23 26 28 29 31 34 37 39 39 43 47 50 51 57 56 57 57 61 64 66 67 67 72 71 72 76	
285	18 20 23 24 24 21 20 17 15	
286	18 19 23 25 25 22 20 18 15 13	
287	18 20 24 25 27 28 31 30 29 31 32 31 33 33 36 39 40 44 44 45 46 48 50 52 54 56 59 60 61 59	
288	14 17 19 20 20 19 19 19 20 21 21 24 24 27 25 32 32 35 35 36 39 39 42 43 44 44 43 42 44 45	
289	11 13 15 16 15 15 15 13 12	
X 290	16 17 20 20 21 22 24 25 27 29 32 33 35 37 42 45 47 50 53 55 57 58 60 64 65 67 69 71 73 73	
291	15 16 20 22 25 27 30 30 30 31 33 34 35 37 40 42 43 45 45 46 47 49 50 49 49 48 51 51 51 51	
X 292	16 17 20 22 24 27 31 37 36 40 43 45 48 49 54 56 58 63 65 64 67 70 74 75 75 74 80 81 84 87	
293	17 19 21 22 22 22 24 25 28 29 33 36 38 40 45 49 48 51 53 54 55 57 60 61 62 63 65 65 67 68	
294	17 19 23 25 27 29 32 33 34 36 38 39 41 43 46 49 50 52 54 55 55 58 59 62 62 64 66 66 68 69	
295	18 19 22 24 26 30 33 37 40 43 44 57 55 57 59 64 65 69 72 74 76 76 79 82 84 87 88 92 92 94	
296	17 20 23 26 27 28 25 21 19 16 14	

Average wt. 16.7 18.6 21.8 23.2 24.0 24.8 25.4 25.1 25.5 28.2 32.3 32.4 37.3 37.8 39.6 43.6 45.8 46.4 49.4 50.5 51.7 52.4 54.8 57.1 58.9 59.6 60.9 62.7 64.3 66.6 67

% P, CWS, D 0 0 10 20 40 45 55 60 65

% D 0 0 0 0 0 0 5 15 25 30 35

4.5

LAKEVIEW HAMSTER COLONY HAMSTERS (28-36 Gm)

C No CORTISONE - HANSLING VIRUS 1:100 ONLY

HAMSTER NO.	A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
318	32	35	37	42	45	47	49	52	55	58	60	62	66	66	69	73	73	76	77	75	78	82	79	80	78	79	82	82	85	84
319	31	36	40	43	46	49	51	58	43	37	34	-----																		
320	34	36	40	44	46	49	51	-----																						
321	30	34	38	40	42	38	37	38	39	37	39	41	42	42	44	46	46	50	50	51	55	55	56	56	59	60	59	59	62	62
322	33	35	38	41	43	44	46	47	49	48	46	45	47	47	41	47	49	50	51	50	50	50	48	47	47	47	45	41	42	43
323	33	35	38	40	43	44	47	50	51	52	45	42	43	45	50	54	54	57	59	58	62	64	64	63	63	65	65	66	68	68
329	30	33	36	39	42	45	46	49	52	54	57	60	62	61	60	54	50	48	45	42	42	42	40	39	38	36	38	34	37	35
325	28	31	34	37	40	40	43	45	45	48	48	48	49	49	52	52	51	49	46	46	47	46	46	45	47	47	51	52	54	55
326	30	35	38	42	45	45	47	47	48	49	52	51	50	49	51	54	54	57	61	60	65	65	67	69	71	72	72	73	74	75
327	29	35	37	43	46	48	51	52	56	56	52	43	-----																	
328	35	38	42	43	45	48	49	52	55	58	62	63	65	65	69	70	72	74	78	76	80	82	84	84	88	88	92	94	94	97
329	32	35	39	41	44	45	48	51	53	56	58	60	62	63	65	70	70	72	73	74	75	77	77	76	77	79	76	76	78	78
330	29	31	33	35	38	39	38	38	40	40	43	42	45	46	48	50	50	52	53	54	57	57	58	58	60	60	62	62	63	63
331	29	33	37	39	41	43	43	46	48	51	54	56	57	58	63	66	67	71	72	73	77	76	79	78	78	80	81	81	83	85
332	31	36	40	42	45	48	50	52	54	56	58	59	60	60	62	66	67	69	71	70	73	74	76	74	74	75	78	80	81	83
333	33	34	37	41	43	46	49	52	56	59	65	65	71	71	75	78	80	84	86	86	89	91	94	98	99	99	102	100	99	100
334	32	35	40	42	44	47	49	52	55	57	60	62	64	66	69	73	73	78	79	77	82	80	83	85	87	89	89	91	94	95
335	33	36	40	42	45	45	49	51	55	56	58	60	62	63	66	68	69	73	74	75	76	77	78	79	82	81	78	77	78	80
336	29	34	37	40	44	46	48	51	54	57	59	60	64	62	65	67	67	69	70	69	73	75	77	77	78	78	73	68	67	68
337	36	38	42	44	47	49	51	54	57	60	63	64	68	67	70	71	73	76	78	74	82	83	86	87	87	88	89	90	91	93
Average wt.	31.4	34.7	38.2	41.0	43.7	45.2	47.1	49.9	50.7	52.6	53.4	54.5	57.5	57.6	60.3	62.3	63.5	65.2	66.1	65.6	69.1	69.2	70.1	70.1	71.3	71.9	72.4	72.3	73.5	74.3
% P, CWS, D	0	0	0	5	10	15	20	20	20	25	35	35	35	35	40	40	40	40	40	40	40	40	40	45	45	45	45	45	45	
% D	0	0	0	0	0	0	5	5	5	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	

LAKEVIEW HAMSTER COLONY HAMSTERS (59-70 Gm)

OCT 25 1951

E NO CORTISONE - LANSING VIRUS 1:100 ONLY

HAMSTER NO	A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
358	70	75	76	77	76	77	79	82	84	84	80	85	84	86	87	90	89	91	94	92	97	94	98	98	98	100	101	101	100	101
359	68	74	72	75	72	74	76	75	74	71	72	70	70	69	72	76	75	78	79	90	82	84	85	86	88	89	89	90	90	89
360	70	76	77	80	80	80	82	84	86	85	87	89	87	89	91	94	93	93	96	99	96	97	99	99	102	103	103	101		
361	67	73	75	78	76	77	81	83	83	78	77	74	72	73	74	78	78	80	84	84	89	88	90	91	91	93	93	94	93	94
362	64	71	75	78	75	77	74																							
363	65	73	74	76	76	77	78	80	79	78	81	80	82	82	84	84	84	87	85	86	97	91	90	90	93	92	92	93	93	
X 364	70	74	73	74	71	68	63	63	61	59	61	60	61	61	64	66	68	68	72	72	73	75	75	76	77	78	80	78	79	79
X 365	62	67	68	71	69	71	75	76	78	77	74	78	79	82	86	88	88	89	91	91	93	94	97	99	100	101	100	99	100	101
366	60	65	65	68	67	67	66	62	59	57	56	53	54	51	53	52	52	53	55	54	55	55	57	59	59	60	62	63	62	59
367	64	70	74	76	75	76	76	74	66	64	60	61	61	63	64	66	69	70	69	72	73	75	75	77	76	79	81	81	79	
368	67	75	78	83	81	83	84	85	82	76	72	66	62	57	53	50	49	49	48	52	54	55	56	58	60	62	65	68	69	70
369	61	66	68	70	68	69	69	72	73	72	71	73	73	75	75	77	77	76	79	76	90	90	82	82	83	84	84	82	79	79
370	70	75	76	79	78	80	83	84	88	87	89	91	91	92	94	97	97	97	99	97	102	100	103	102	103	102	102	100	100	102
371	57	65	67	69	69	66	62	58	57	56	58	56	55	56	63	64	67	69	69	71	73	73	74	73	73	74	72	69	67	
372	64	71	73	76	75	77	78	79	81	80	80	81	82	82	80	83	84	84	87	89	87	87	93	94	95	97	103	100	100	101
X 373	60	67	71	73	72	74	75	76	77	77	74	76	78	78	79	82	83	84	85	84	89	89	92	92	93	93	96	97	97	97
374	65	71	73	77	75	76	80	80	83	80	81	85	85	86	86	87	88	87	88	87	88	89	91	90	91	92	92	92	92	92
X 375	62	67	71	73	71	72	72	68	64	59	56	50	46	42	41	38	36	34	32											
376	59	63	67	69	69	69	70	70	67	60	55																			
377	59	64	65	68	67	67	68	67	58	52	49	45	43	40	38	35														

AVERAGE WT. 64.2 70.1 72.7 75.7 73.2 73.8 74.5 74.7 74.1 71.4 70.3 70.8 70.3 70.1 71.0 72.4 74.7 75.3 77.3 79.4 82.1 82.6 84.8 85.1 86.8 87.8 89.3 88.2 87.9 87.7

% P, CNS, D	0	0	0	10	15	15	25	40	40	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
% D	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
% D	0	0	0	0	0	5	5	5	5	10	10	10	10	10	10	15	15	15	20	20	20	20	20	20	20	20	20	20	20	20

87.9
6.8

LAKEVIEW HAMSTER COLONY HAMSTERS (56-69 Gm.)

CORTISONE - 5 mg. in 0.2 ml. - I.M. - 1.5% BENZYL ALCOHOL AND
SUSPENDING AGENTS - LOT # + LANSING VIRUS 1:100 I.C.

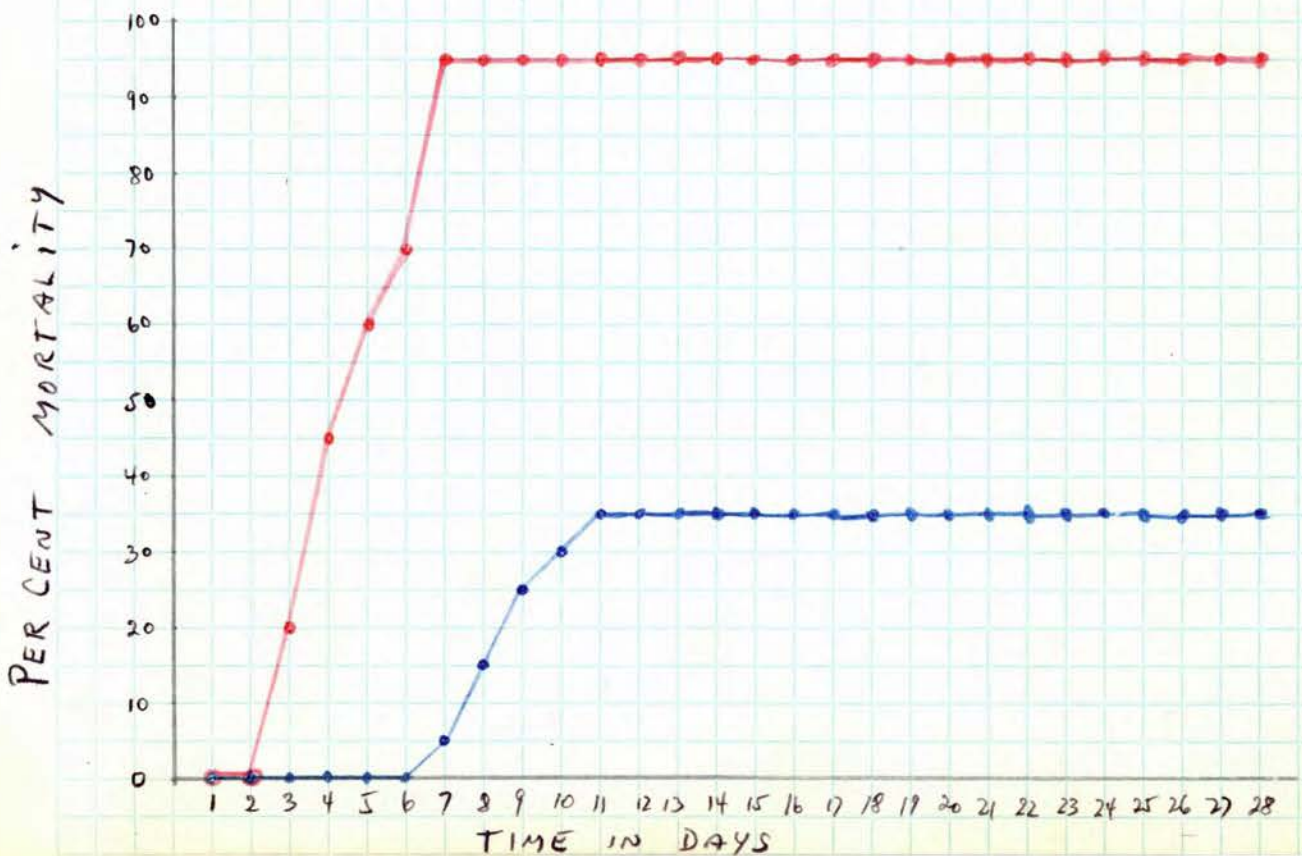
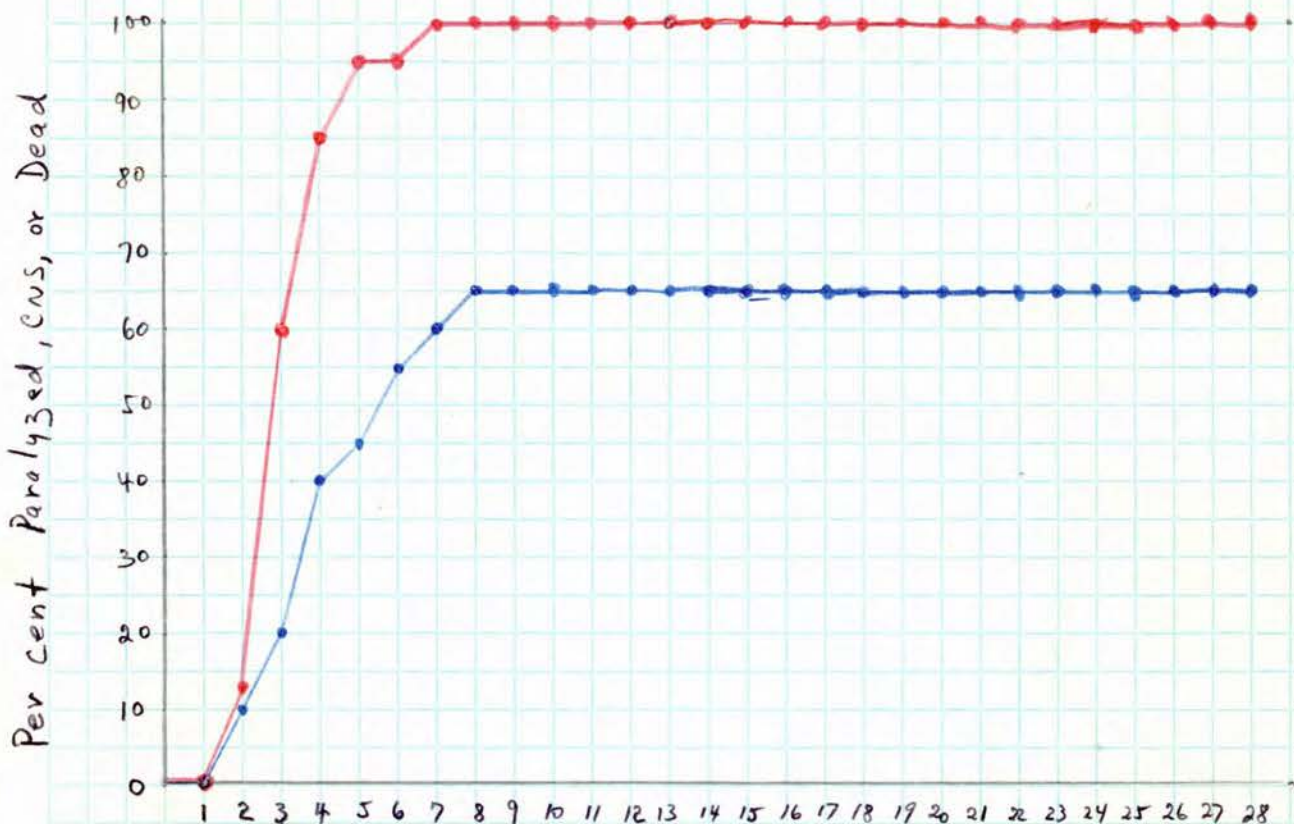
HAMSTER NO	A	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28					
378	64	68	70	73	71	72	72	74	76	72	75	77	79	81	84	90	89	91	93	94	99	98	100	104	106	107	110	111	114	114					
379	59	65	65	66	66	66	67	68	69	67	67	70	72	74	76	74	78	83	84	87	86	90	92	92	95	93	93	99	99						
380	62	65	65	62	61	60	58																												
381	65	69	68	70	69	69	69	67																											
382	66	72	72	73	72	70	71	72	74	71	73	73	76	77	77	78	79	82	83	83	87	85	84	92	90	93	93	94	95	96					
383	65	73	71	72	71	72	71	73	74	73	74	76	76	78	74	82	84	86	88	87	93	92	95	100	102	102	103	103	108	109					
384	67	73	72	74	74	74	75	74	70																										
385	69	74	75	77	76	76	76	77	79	74	76	67	62	59	57	53	50	46	45																
386	62	68	69	72	73	72	72	73	75	89	61	54	53	56	57	56	54	51	48	43	41														
387	64	67	67	68	69	69	70	71	69	61	56																								
388	57	61	60	62	61	60	52																												
389	56	61	61	63	62	64	63	65	64	60	56	52	52	50	48	49	51	52	54	53	54	56	56	59	60	62	65	59	62	60					
390	59	65	66	69	68	70	69	68	60																										
391	63	67	68	69	68	68	69	69	64	61	59	54	57	47	44	40	38	36	33	31															
392	68	73	75	76	77	76	76	77	79	73	73	67	63																						
393	60	64	65	66	65	66	67	68	67	60	58	57	54	58	62	65	66	69	70	72	75	72	71	73	76	76	81	81	83	84					
394	60	67	66	68	68	68	68	70	66																										
395	67	73	72	72	73	73	72	75	75	70	69	64																							
396	65	70	71	72	71	72	70	71	74	76	70	71	74	75	75	73	69	67	66	65	65	65	66	68	69	70	74	74	78	78					
397	59	64	65	67	68	67	67	69	67	58																									
AVERAGE WT.	62.8	67.9	68.1	69.5	69.1	69.2	68.6	71.1	71.0	67.7	66.9	65.2	65.1	65.9	66.6	66.6	66.6	68.2	70.2	71.9	70.9	74.9	85	86	88	88	89	91	91.4						
% P, CNS, D	0	5	5	10	10	15	4	0	5	0	6	7	0	7	0	7	0	7	0	7	5	7	5	7	5	8	0	8	0	8	0	8	0	8	0
% D	0	0	0	0	0	10	15	3	0	3	5	4	0	4	5	0	5	0	5	0	5	5	5	6	5	6	5	6	5	6	5	6	5	6	5
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28						

7
8.5

EFFECT OF A SINGLE DOSE OF CORTISONE (5mg.)
ON INFECTION OF BABY HAMSTERS (13-22 GMS.)
WITH LANSING VIRUS

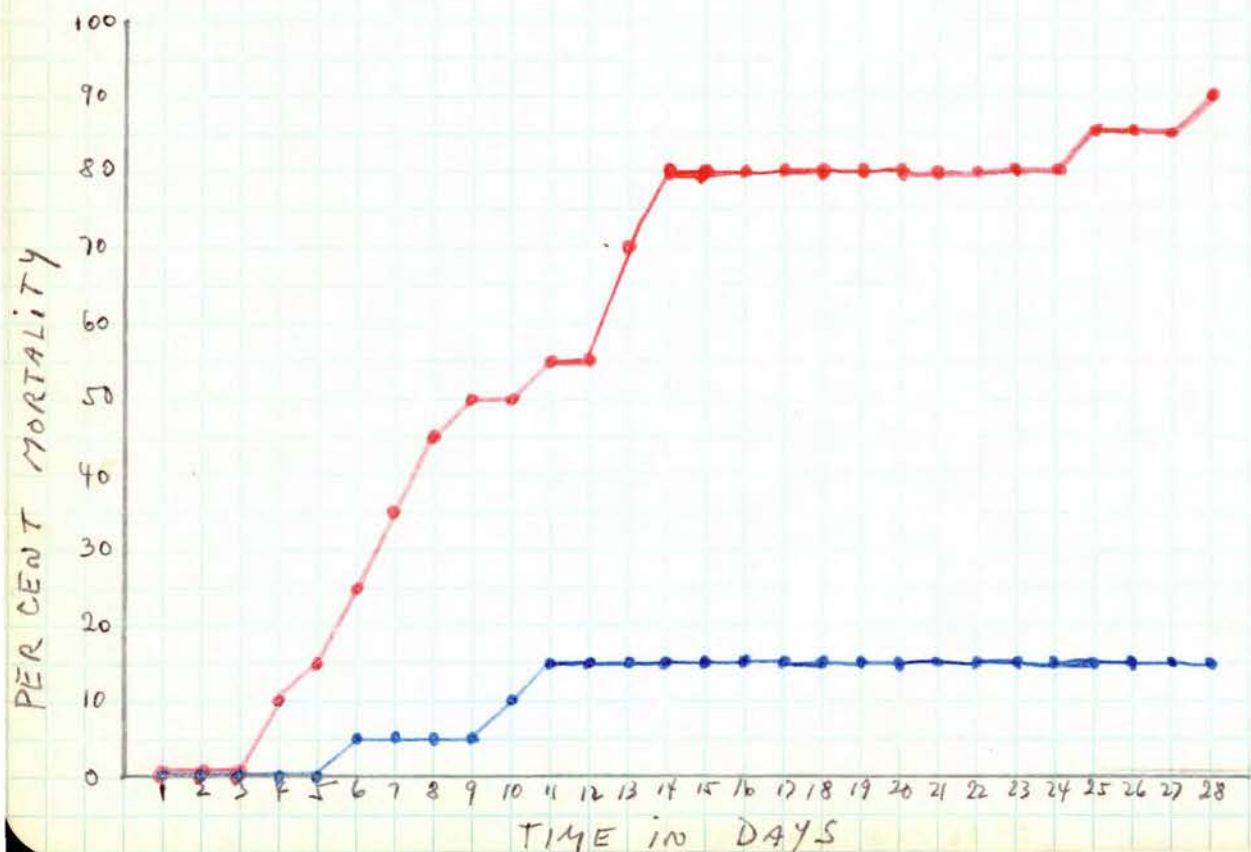
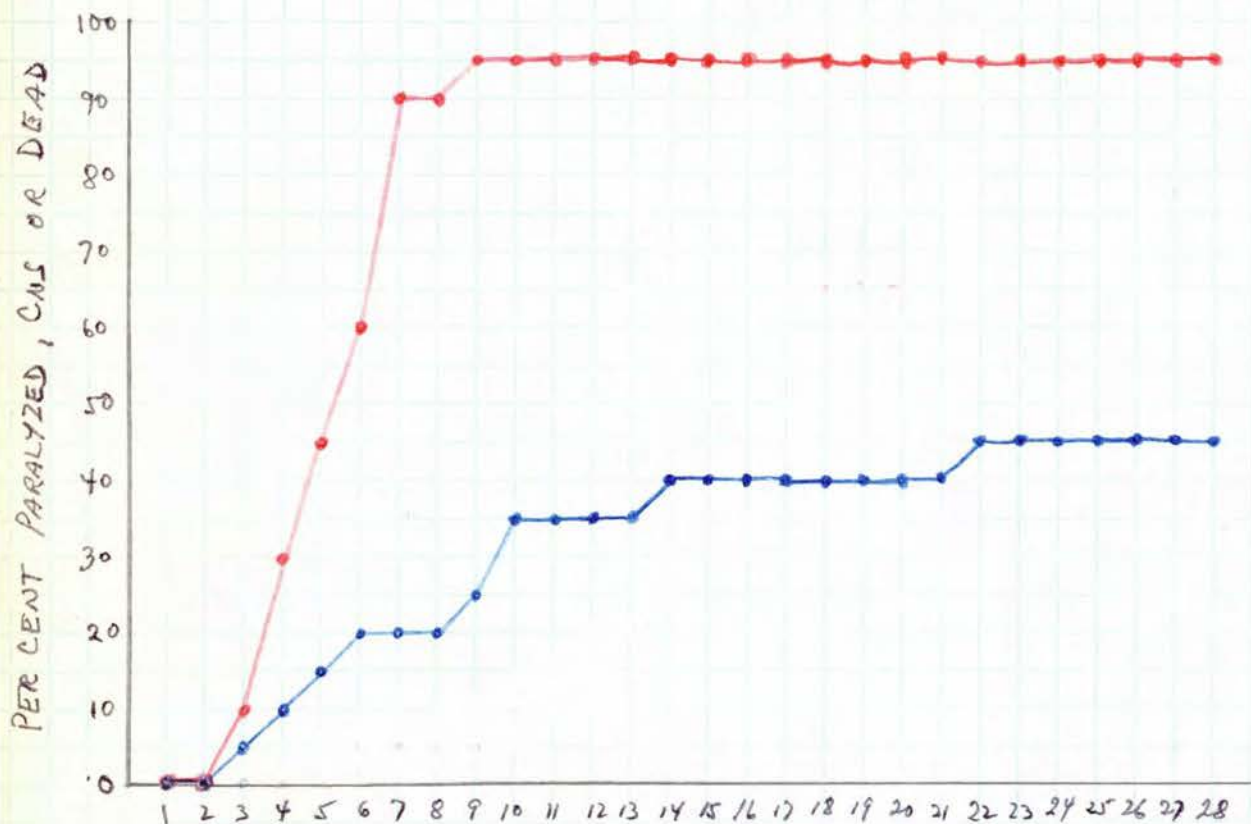
OCT 25 1957

—●— Untreated - 20 Hamsters (18.6 gm) - LANSING 1:100
—●— Cortisone (5mg.) - 20 Hamsters (17.7 gm)



EFFECT OF A SINGLE DOSE OF CORTISONE (5MG) ON INFECTION OF IMMATURE HAMSTERS (29-39 GMS.) WITH LANSING VIRUS.

●—● Untreated - 20 HAMSTERS (34.7 GM) - LANSING
●—● Treated CORTISONE 5mg - 20 HAMSTERS (33.4 GM) 1:100



EFFECT OF A SINGLE INJECTION OF DIFFERENT DOSES OF CORTISONE (5 AND 25 MG) ON INFECTION OF MATURE HAMSTERS (61-76 GMS.) WITH LANSING VIRUS (1:100)

OCT 25 1957

● — Untreated — 20 HAMSTERS (70.1 GM.)
 ● — CORTISONE 5 MG — 20 HAMSTERS (67.9 GM.)
 ● — CORTISONE 25 MG — 22 HAMSTERS (68.1 GM.)

} LANSING 1:100

