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October 1, 1932

Puke Hospital Office of Superintendent Reply to Hudersigned Box 3715

> Dr. W. C. Davison, Dean Duke University School of Medicine Durham, North Carolina

Dear Dr. Davison:

It is my belief that Duke Hospital is falling short of fulfilling its greatest possible service for perhaps two or three primary reasons:

1. The general economic depression has reduced the incomes of all classes, but especially those of the poor, to the extent that practically none of these is able to pay the rates which all hospitals, Duke included, maintain. The obvious result is, of course, that being impossible to pay all, nothing is paid, and the word "charity" becomes the skeleton key which is expected to open all doors. Normal self-respecting people being unable to pay in full suddenly decide to try this "charity"; local units dodge their just responsibilities with the cry "for charity: " hospitals and other philanthropic institutions in turn are fairly forced to become beggars, piling up huge deficits and shouting "for charity" or. "for science, give us more." But the most important, if these deficits are to be covered, a vicious circle appears, and all classes instead Duke Hospital Office of Superintendent Reply to Hudersigned Box 3715

Dr. W. C. Davison

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of being aided are made poorer. This vicious circle of "charity" becomes stronger and more vicious with increasing usage. Duke Hospital in maintaining its present rate structure which at best cannot be said to be based upon the difference between fixed income and costs, nor wholly upon ability to pay, but upon customs of uncertain age, has probably forced many to ask for charity who should not have done so.

- 2. Rightly or wrontly, the larger portion of the funds which maintain Duke Hospital were given by Mr. Duke for:
 - a. the training of Doctors,
 - the alleviation and curing of disease in the people of North and South Carolina,
 - c. and the building of true good will amongst these same people—not by prostituting their character through charity, but by assisting them to obtain services and institutions much finer than they, unaided, can afford at this time.

If Duke Hospital, then, has 200 beds open when it could have 300; if it sets nearly impossible prices upon its services and thus keeps away many valuable cases who will not ask charity, and if at the same time is admitting over 85% of patients at less than its established rates, there are then two forces at work which accomplish the double effect of weakening respect for the Hospital, and of preferring the ardent beggars over those who are more proud or resourceful:

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if the Hospital passes any chance to build good will through honest measures which face the facts of its case squarely, or regards the smaller criticisms of other hospitals; if, I say, any of these are true, then Duke Hospital is falling short of its greatest service, and I believe it is.

3. The common rate structure of a hospital with its basic charge for board and room plus perhaps a score of extra charges is admittedly based upon the rate structure of hotels. There is this fundamental difference, however, between the hospital and the hotel:

A hotel is a profit making institution, whose rates must be based on cost plus a profit - if people cannot pay, the service is not given. Here, presumably, people buy only what they can pay for.

A <u>hospital</u>, particularly such a one as Duke, cannot be operated at a profit and at the same time maintain the purposes for which it was founded, so the service must be given, pay or no pay.

If we admit, then, this essential difference which stamps a hospital as a less-than-cost service institution, we are rather forced to conclude that the only question is: how much of this cost can we fairly collect? And the answer is, of course, only what the patient, or his

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Dr. W. C. Davison page 4

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friends and relatives, or his county, or his lodge can pay. And each cent which one patient does not pay, some future patient must pay for or be turned away. It seems right to assume that the principle of charging for extras forces admitting officers to be indefinite and in the same degree ineffective, and it forces patients to delay the square facing of definite financial responsibility until the hospital has lost its strongest hold on their interest in the matter. The one wirtue which extra charges possesses is that they enable the hospital to collect more from an occasional well-to-do patient than it otherwise could, but do these few collections overbalance the loss entertained from its other cases—perhaps over 85% in number?

Because of these things I should like to present the attached report and recommendations.

Respectfully yours,

2.1). Ollvally

F. V. Altvater

FVA: R

During the fiscal year 1931-1932 Duke Hospital, without incurring a deficit, treated 4,699 patients on its wards, and rendered 60,362 days of service. The average stay of each patient was 12.8 days, and the average amount collected from each of these patients for Hospital, Independent Departments, and Medical School Laboratories was \$22.67, or \$1.77 per day. This \$1.77 was divided as follows:

In order to ascertain the average amount charged each patient, an audit of 719 patients ledgers systematically selected from the Inactive, 1932 Paid Up, and 1931 Paid Up files was taken to insure fair sampling. A Met sum of charges of \$51,089.70 for 9848 days of service was thus obtained. The final results are:

Table 2

Service At	r. Stay	Tot. bill	Av. per day	On a.p.a.	Box a.p.d.	X-ray a.o.d
Med.(inc.Ped) Surg.(" ") Urol. Orth. N&T Gyn. Obst.	13.9 19.35 10.2 11.3 5.1 9.5 14.6	73.80 90.00 58.20 56.95 29.90 62.35 74.70	5.31 4,65 5.70 5.02 5.88 6.58 5.11	.08 .69. .47 .675 1.675 2.03	3.95 3.36 3.93 3.465 3.81 4.68 3.13	.54 .24 .47 .51 .14 .18
Total & Our.	13.7	71.15	5.20	•59	3.73	• 35
R. Lab. a.p.d16 .11 .20 .23 .15 .25		2b. 2.p.d. 21 034 05 11 05 18	Drugs a.o.d19 .11 .46 .03 .04 .16 .32	All other 1 .165 .105 .125 .015 .01 .105 .065	6 a.p.d.	Service Med.(inc.Ped) Surg " " Urol. Orth. N&T Byn. Obs.
.15		12	.16	.12		Totals ar.

chance variation in sampling, and if we remember that the Surgery figures are necessarily low because of the larger percentage of ward cases taken by this service, the conclusion presents itself that while there are large variations between the various services in the charges per day for extras, yet the total charge per day presents a remarkably close grouping due to cross cancellation of one type of charge on one service against another type on a second service.

Finally, in order to ascertain what collections per patient day would be necessary to satisfy the present budget structure a calculation showing the relation between predicted Hospital costs and known fixed income is given below. Concerning costs other than those of the Hospital——although the present budget is based on 80,000 patient days of service for the year, it is fair to assume that the same per patient day collections on the 91,200 patient day basis and on the 109,500 patient day basis would provide sufficient revenue to offset the additional expenses of the various Independent Departments, and of the Medical School Laboratories.*

80,000 91,200 109,500 (9125 Mo.)

Cost Fixed Income
Hosp. 4.00** 3.00 -1.00 | 3.65** 2.63 -1.02 | 3.50** 2.19 -1.31

* In order to examine this statement for truth the unreliable but nevertheless indicative patient day cost figures of the various Independent Departments likely to be affected, and 1/2 of the lab. salary and supply expenses of the Departments of Medicine, Pathology and Biochemistry for the fiscal year 1932-1933 are also given:

			Table	3 <u>A</u>		
	Cost	Actual Inc.			Expected Inc.	
	1932-133	1931-1932	±		1932-1933	±
MS Labs.	.143	.13	013)		.10	043) From
Pharmacy	.176	.06	116)	From Table #1	.025	151) Budget.
X-ray	. 246	.18	064)		.187	059) Budget.

** These costs are interpolated from the Prediction Graph located in Altvater's office. In order to insure safe margins the following amounts have been added to the predicted fligures:

80,000 pt. days \$.20 91,200 pt. days .45 109,500 pt. days .90 Examination of the foregoing statistics seems to point to the following conclusions:

- 1. That while average charges of \$5.20 per patient day were made, collections against these charges were only \$1.77 per patient day. Further, my experience has been that these percentages have remained relatively unchanged from month to month (see percentage distributions, falls).
- 2. That the total bill of charges per patient per day fluctuates within a rather narrow range around an average figure of \$5.20 per day.
- 3. That, even after including adequate allowances for possible errops, there still exists such a persistant downward trend in the cost prediction curve that it seems safe to assume that even when the Hospital's census reaches 275 or 300 patients per day that a total of not over \$1.30 per day in receipts from patients and from the Hospital Section of the Duke Endowment for free patients is necessary to cover the difference between fixed income and operating costs.

Accordingly, I propose the new flat rate schedule for the Duke Hospital which is as follows:

Before doing this, it is important to mention several principles other than those already outlined which have influenced this proposed rate structure:

Since it is desirable to encourage both obstetrics and pediatrics in this Hospital, special consideration has been made in rates for these services, just as it has for the Nose & Throat cases whose short length of stay sets them in a class apart.

Since it appears unjust to divert funds which were expressly given this hospital for the teaching of medical students and for treatment of these unable to pay the full cost of treatment, I have incorporated into this proposed flat rate structure an approximate cost price of \$5.00 per day as a flat rate

charge which is to replace the 25% discount which the Hospital has been allowing Physicians, Ministers, University Employees and Duke Endowment Employees. Many of these have been paying less than cost for Hospital service. This rate is for a full private room of the type for which we now charge \$6.00 plus extras, more desirable rooms are priced proportionately. Further, since a diversion is equally unjust if insurance companies are allowed to pay less than cost on compensation cases, I have recommended a compensation rate of \$4.50 flat, the patients to be hospitalized in the rooms reserved under the heading "Middle Group" below.

and had been and a se

Finally, there is a large and important number of office workers and others of the same economic group within the drawing range of this Hospital who are unable to afford full private rates for hospitalization and professional service. To date the needs of this group have only been recognized in a few isolated communities, none of these being in the South. In the schedule below an attempt has been made to satisfy the demands of this group from the standpoint of hospitalization, I recommend that the physicians of Duke Hospital also endeavor to set their fees for professional services on this type of patient in agreement with the needs of this economic group.

The proposed flat rate schedule follows; its most important points being:

Duke Wafalah nats argueted for afil 15.1932

Heat the ward rate is a minimum schedule, and no patient mer be

admitted Below these rates which must be paid in advance (unless the Superintendent and the Admitting Officer jointly agree to an individual exception),

b. And that the Admitting Officer be given the power, to refuse admission to any patient applying for less than cost service, who is unable to meet the rate which the Admitting Officer finds he is able to pay —the only exception

^{*} A practical "rule of thumb" method I suggest for use in setting less-than-cost rates is to charge the same rate per day as there is income per day in a standard family of three. This standard can then be varied to fit the facts of each individual case. The housing and food of farmers and others who do not possess a regular income may be reckoned at \$.30 per head to a maximum of 5 persons.

5.

to this being in cases of clinical value when the Admitting Officer must admit of

at least the minimum rate if he is unable to secure betters

Private Rates + Pufusional Lees in addition

Court Rooms - \$6.75 per day flat rate - 27 moms

\$7.50 per day flat rate 4 1 poops Front Rooms (with lawatory only)

Better Front \$8.25 per day flat rate - 13 rooms (possible 26 rooms)
Rooms (but 7 without bath Y

Best Rooms - \$9.00 per day flat rate All booms

Middle Group Rates (Semi-Private) Professional Fees Private Ward Cubicles - \$5.00 per day flat rate - 33 beds Public Ward (2-bed rooms) - \$3.50 per day flat rate - 14 beds (possible 22)

Ward Rates No Professional Fees in Addition

All 16 bed & 4 bed (Minimum) Public Ward Rooms \$1.00 per day flat

(Maximum) \$3.50 per day flat - 226 beds (nossible 250)

Special Rates

All Obstetrical Cases - 52 beds, 50 bassinets, Private .75 per day less than standard rates (above); Middle Group & Ward same as standard; no charge for baby while mother remains in hospital.

All Pediatrics Cases - 26 beds (possible 52 beds)

(Private \$4.00 flat; Middle Group \$3.00 flat; Ward Rate \$.75 to \$2.75 flat.

Il Juke Graguestis Clinic polionts of

* P. D. C. as before: \$5.00 for 2 days (4 days if admitted on Friday or Saturday); (Hospital Rates afterwards.

See Schedule A - Appendix

Children under 14 years - \$2.00 per day more than Pediatric rates, For four days, thereafter same as Pediatric Rates. Adults - \$2.00 per day more than standard rates for first four days, thereafter the same as standard.

> Physicians, Ministers, Kall Duke University or Duke Endowment Employees

Private Rates - \$1.75 less than standard (above.) or, the pertinent "Special Rate", whichever is lower.

Compensation and Insurance Cases Paling

All cases - Middle Group room accommodations - \$4.50 flat rate per day.

receding flat rates include all Hospital charges except Special Nurses and Special Murses Board, Blood Transfusions, Telephone Calls and Telegrams, and Braces.

This rate structure may now be examined from the point of view of its economic expediency for the Duke Hospital and Medical School. The physical design of the Hospital establishes the following theoretical percentages of occupancy by economic class:

Table 4

Private	6.75	to	9.00	rate	69	bess	15.1%
Middle Group	3.50	60	5.00	rate	47	beds	10.3%
Ward	1.00	to	3.50	rate	228	beds	5010%
Pediatric	• 75	to	4.00	rate	52	beds	11.4%
Infants	Free	to	2.75	rate	50	bassinets	11.0%
All other					2 SANSON COMP	beds	devices relative to the second con-
Total					456	patients:	100.0%

Practical considerations, however, make the following percentages more probable:

Table 5

Private Middle	15.5% -	Assume ar	n average	collection of	\$5.50 per day
Middle Group	10.5% -	II II		11 11	4.00 per day
Ward	6010% -	Assume a	n average	of {Patients D. End.	.75 per day
Pediatrics	7.5% -	11 11	н н	" {Patients D. End.	.50 per day .87 per day
Infants	6.0% -	11 11	n a	" {Patients	.00 per day
Others					The same of the sa
	100.0%	Weighte	ed av. coll	ections of	\$2.365 per day

* Les appoints, dehedule B, for detailed comparason will present rate atmeture.

Now, if the Hospital were opened to 220, 250 or 300 patients per day the following amounts, or more, would probably be collected; if we add to this the known fixed income and compare the resultant with cost, the economic expediency of the proposed rate structure will be well demonstrated since the above assumed averages are quite conservatively placed.

Table 6.

Census	Hosp. Col.*	Fixed Income	Total Inc.	COSTS Predicted ***	Other	Net Surplus or Deficit
220 pt. daily 50,000 yearly	\$132,400	\$240,000	\$372,000	(4.00 per day) \$320,000	(4.60) \$368,000	+\$52,000 or + 4,000
250 pt. daily 91,200 yearly	\$150,800	\$240,000	\$390,800	(3.65 per day) \$333,000	(4.40) \$401,300	+\$57,800 or - 10,500
275 pt. daily 100,300 yearly	\$166,200	\$240,000	\$406,200	(3.55 per day) \$356,200	(4.25) \$426,400	+\$50,000 or - 20,000
300 pt. daily 109,500 yearly	\$181,200	\$240,000	\$1421, Q 00	(3.50 per day) \$383,000	(4.15) \$454,200	+\$38,200 or - 33,000

Since Duke Hospital and Medical School will have a surplus due to the heavy census reductions of the last few months, I believe that it would be financially sound to adopt this rate schedule; I also believe that it would be equally sound for the Hospital to increase its census to 275 or even 300 patients per day, if as a result of this plan the increase were demanded. I base these beliefs on the fact that throughout this entire study my estimates have been extremely conservative. Should prices and wages advance, a rate schedule of this type may be easily raised by increasing each rate by the same amount, such as \$.50 or \$1.00

(Board and Room 12.5% Hosp. (Oper. Room 57.5% (Total 70.0%

This note continued on bottom of page 8.

^{*} Since "average rate" includes collections for Independent Departments and Medical. School Laboratories as well as Hospital collections, it will be necessary to distribute all money received according to the following table of percentages constructed from Table 1, page 1, and modified slightly to fit the changed rate structure:

Were this plan adopted, I believe its incidence upon the people of this and surrounding states would be:

- 1. That the Hospital's first critics will be hospitals and some members of the medical profession who would say that Duke money was being used to kill their legitimate business—but after all, the total effective capacity of Duke is only about 350 patients; secondly, these new rates aim to accomplish more in collections and in justly charging according to ability to pay than the old rate policy has, therefore, it seems improbable that the new policy could injure especially if the old one did not; and finally, ff the time has come for fleeting facts squarely, and if by doing this the Hospital shows a new and better way, what is to prevent another hospital from adopting the same policy?
- 2. That some patients who are now able to obtain admission on a free basis will not be admitted under the new policy, but this number should be rather small, for it is likely that, once this rate schedule becomes well known, a friend, a church, a relative, a lodge, a county, or a community will be able to supply enough money to meet a \$1.00 per day charge.
- 3. That, granting this scheme is revolutionary enough to create its own publicity with a little initial aid from the Hospital, there should be a large new source of clinical material opened to the Hospital, a "new market" as it were.

Medical School Laboratories 10%

(X-ray 10.5% (Drugs 5.0% Ind. Depts (Physio. 2.5% (Pub. Bisp. 2.0% (Total 20.0%

^{* (}continued)

^{**} See Table 3, page 2.

4. That, sooner or later there will come a widespread recognition that the fundamental principle of thes scheme is aid, rather than charity, for wise charity or aid is an enlightened principle, but complete charity prostitutes the character of a people. Mr. J. B. Duke, notably, recognized this principle and built his structure of philanthropy upon it.

Finally, but most important—in fact, it is impossible to stress these two points too earnestly:

- 1. Admissions at less than minimum rates or without payment of at least
 15 days in advance must not be made or the scheme will fail.
- 2. The initial success or failure of this scheme depends entirely upon whether or not it receives a large and adequate publicity.

Schedule B

Comparative Patients Bills under Present and Proposed New Rates.

If we examine Table 2, p. 1, we may note that the average bill of a patient per day under the present rates is \$5.20--this is comparable with the average bill per patient per day under the new rates of approximately \$2.62*; an average reduction of 49.8%.

We may gain a still better idea by comparing a few typical patients

Type of Case	Av. length of stay & description	Present Rates	New Rates
an employed the second		Bd. & Rm: 19 x \$6.00 = 114.00 0.R. 15.00 X-ray 15.00 Labs 2.50 Drugs & 3.00 others \$149.50	Flat Rate
Ward, Medical	14 days stay, ward, medium difficulty in diagnosing	Bd. & Rm: 14 x \$3.00 = 42.00 X-rays 16.00 Labs 5.50 Drugs & 3.00 others \$67.50	Flat Rates Max. 14 x 3.50=\$49.20 Min., 14 x 1.00= 14.00
Med. Group, Obs	15 days stay, normal birth, semi-private accommodations	(Flat Rate) Bd. & Rm.: 10 days 60.00 4 days 15.00 \$75.00	70.0 0.00. Max. 14 x 5.00*\$70.00 Min. 14 x 3.50= 49.00

Av. Rate Beds \$7.50 x 69 = 517.0 4.70 x 47 = 221.0 1.50 x 238 = 357.0 1.00 x 52 = 52.0 .10 x 50 = 05.0 456 1152.

1156 = \$2.55 per day av. rate + .07 for Specl. Nurse Bd., Braces, etc. = \$2.62

School of Medicine Department of Medicine Reply to Undersigned Box 3703

March 23, 1933

Dr. W. C. Davison Durham, North Carolina

Dear Dr. Davison:-

As requested, I am submitting the following "criticism" of the report by Mr. Altvater dated October 3, 1932.

As a matter of administrative technic, of which my knowledge is small, it seems to me that the principle of flat charges based on the service and the type of room selected is both sound and fair, and I believe it would be satisfactory to any physician attending a patient who is able to pay part of the costs of his care.

However, there are two aspects of Mr. Altvater's arguments in his letter of October 1, 1932, page 2, paragraph 2, which demand further examination, and which are not adequately covered in the report which follows.

First, with regard to the "building of good will" and the "prostitution of the people thru charity" of the purpose of Mr. Duke's will:

- 1. The report suggests that "a friend, a church, a relative, a lodge, a county or a community will -- supply" \$1.00 per day. At least 3 of these sources cannot be other than "charity".
- 2. Any system which does not provide for the immediate admission and treatment of emergency medical, surgical and obstetrical conditions, whether or not the sum of \$15 is forthcoming (or, at midnight the Superintendent and admitting officer can be reached to agree), seems unlikely to produce good-will toward the name of Duke in the minds of those interested in such dangerously ill people. The report is incomplete in the respect that no attempt has been made to present figures as to the frequency of such emergencies, or a definite statement as how they would be handled. From the figures given it would appear that only a slight relaxation of the pay-in-advance requirement would lead to a deficit.

Second, with regard to the training of Doctors as a purpose of the Duke will, a question is presented which can be answered only by those directly concerned in clinical teaching, "Would the Medical School be seriously embarrassed by the elimination from every ward of every patient who is unable to pay \$1.00 per day in advance?"

School of Medicine Bepartment of Medicina Reply to Undersigned Box 3703

March 23, 1933

Dr. W. C. Davison - cont d.

The report carries no data which can be used to answer this question, and each clinical teacher is forced to answer on the basis of his own impressions, unbolstered by figures. I believe that figures are available which would be of some value, that is a tabulation of the percentage of patients admitted to the teaching wards who pay less than \$1.00 per day for their care. The use of these figures, with reservations, implies the acceptance of only two assumptions:

- 1. That the staff member is honest in his estimate of whether a case is acute, emergency, or otherwise and that the certificate of "clinical value" is not abused by the man whose duty it is to sign for each service, and,
- 2. That the Admitting Officer is at present doing as much as is humanly possible to secure payment without turning away such emergency cases or cases of considerable teaching value, and that he is refusing to admit cases of chronic and subacute disease not certified to be of teaching value.

Assuming the above, the figures should give a fair index of the proportion of all patients which fall into either of two categories, those who need our care as a matter involving life and death and those whom we need for teaching purposes. It would hardly be possible to separate the two categories, but, as I understand the report the proposed plan would automatically eliminate both groups.

While the answer to the question phrased above must fairly be reserved, my personal impression based on recent teaching experience on Osler and the present census of the ward is that serious embarrassment would result because the few "ray" patients admitted to the teaching wards are, really valuable for teaching only in rare instances, while the non-pay patients on the wards represent the cream of the teaching material present in a much larger group of indigent patients. At present there are 16 patients on Osler (and 6 students are assigned to the ward). Two are marked "P 3" and neither are of any teaching value whatever. One, who feels that she is paying her way and is insulted by the ward routine, would make herself very obnoxious if used for teaching, the other is an obscure neurosis which, if thoroughly understood, should not be "demonstrated" before a group of students. One marked "P 2" is a valuable teac ing case. These three, as I understand it. Would remain on the ward under the new plan. Five, marked "D 2 or 3" are all good teaching cases, and of the six marked "O", 2 were admitted as emergencies and are now good teaching material and three of the remaining School of Medicine Department of Medicine Reply to Undersigned Box 3703

March 23, 1933

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Dr. W. C. Davison - cont'd.

4 are so valuable that any teaching hospital would jump at a chance to get them. The fourth is a case of TB brought in for the course in Physical Diagnosis. Thus, 13 out of 14 cases useful for teaching would either be eliminated or would be producing a deficit under Mr. Altvater's report as I interpret it. The situation with regard to colored patients must be even more striking, and the status on Osler will be different during the next quarter when eleven students will be assigned to the ward.

In brief then:

(1) I feel that the effect of the plan on our medical teaching cannot be guaged without access to figures which the report does not contain.

(2) It is my impression that an attempt to increase the per capita daily collections from \$1.77 to \$2.37 (circa 31%), mainly by means of the elimination of patients unable to pay \$15 in advance would seriously embarrass our medical teaching.

(3) I believe that if the proposed plan can be adopted to provide for emergencies and cases necessary for teaching purposes without producing a deficit it is probably the ideal plan of hospital administration.

My only apologies for the length of this communication are that criticism was requested and that fairness to Mr. Altvater's excellent report seems to require a careful exposition of its' apparent omissions.

Yours very truly,

Elbert L. Persons, M. D.