

10TH DRAFT

September 20, 1979

PROPOSAL TO ESTABLISH

"A CASE MIX REIMBURSEMENT EXPERIMENT"

AT

THE NEW YORK HOSPITAL\*

ST. VINCENT'S HOSPITAL

MT. SINAI HOSPITAL

MONTEFIORE HOSPITAL

\*inclusive of The Payne-Whitney Clinic

PREAMBLE

During the last decade, per diem prospective systems for reimbursing hospital costs have evolved on a widespread basis. These programs were developed as alternatives to the retrospective reimbursement system. The underlying thrust of these prospective payment methodologies was to control hospital costs by promoting containment of costs and scope of services.

Hospitals, as providers, quite often complain of inequities. Most prospective systems fail to properly recognize case mix, despite recent reports highlighting the significant impact the case mix variable has upon hospital costs. Payors, on the other hand, are not satisfied with the rate of increase in hospital cost and are beginning to entertain alternatives to better measure hospital costs and provide more equitable payment mechanisms.

Over the last five (5) years, The New York Hospital has been working on a system to identify the importance and impact of case mix upon hospital costs. This project has recently been adopted and expanded by the Office of Health Systems Management of the NYH Department of Health to test out methodology, etc. on a broad range of hospitals.

Concurrent to this endeavor, we feel that the prospects of a reimbursement system that takes into consideration the case mix variable should be tested. Accordingly, we submit the following outline for a joint reimbursement experiment for consideration.

Hypotheses to Test:

1. Payments by whole episodes of care (i.e., per discharge) should neutralize the incentive to prolong LOS as under per diem reimbursement. Will per discharge rates reduce ALOS?
2. What factors contribute to a hospital's case mix over time?
3. Will admissions differ under this reimbursement scheme? In addition, will there be a change in occupancy rates in particular services?
4. Is there sufficient incentive to shift the composition of the hospital's patient load between inpatient and outpatient departments wherever possible?
5. Will hospital costs per discharge decrease or possibly shift to maximize profit margins?
6. Will overall volume decrease to maximize incentive payments?
7. Does this plan offer more opportunities to tie reimbursement, utilization review and planning? Since a new service or program must be related to a DRG payment, it's establishment will be predicated on an acceptable rate. On the other hand, an adequate rate should be authorized by OHSM only where public need is being met.
8. Does this plan offer a viable new role for UR committees and PSRO's since there is a shift from concurrent to admissions review as well as an increased need to examine adequacy of services rendered to patients.
9. Assuming participation by Medicare, Medicaid, and Blue Cross, will the incentive for cross-subsidization of patients be sufficiently neutralized under this plan to affect a hospital's service patterns?
10. If ALOS is reduced under the per discharge payment methodology, will there be an impact on the number of malpractice claims?

11. Does this proposal provide enough incentives and assurances to minimize a hospital's economic sensitivity to per case payment system?
12. Will a hospital restructure it's management controls under this reimbursement scheme? If so, will these monitoring tools have inter-hospital applicability?
13. The current diagnostic grouping system was devised initially as a utilization review tool; recognizing the impact of such variables as diagnosis, primary and secondary, age, sex, operative procedures and therapy on length of stay. When employed in a reimbursement process, do the existing DRGs require further adjustments to reflect the cost, rather than length of stay, impact of these variables?

## Case Mix Reimbursement

### Basic Features

1. The hospital shall be paid according to DRG - specific rates based upon the hospital's average base year costs. These costs will be adjusted forward by the trend factor. The rate, utilizing the cost allocation methodology developed by OHSM's Data Systems Development Project, and modified to reflect payor specific Service Intensity Weights (SIWs), shall be the mean cost based on actual hospital experience including deaths and transfers less outliers (95th percentile of cost) for each DRG. Prior period adjustments and payor methodology defferences, such as the Ambulatory Service Loss, will continue to be recognized.

#### COMMENT

This experiment should proceed from the existing "state of the art" and incorporate the necessary modifications and refinements to create a viable case-mix specific reimbursement system.

2. All base year peer group sanctions shall be waived.

#### COMMENT

The existing peer group ceilings are functions of the per diem system and should not be applied to a case mix oriented reimbursement system.

3. The hospital, in cooperation with its area PSRO, will focus its Utilization Review activities on admission review, without onsite review. The participating payor(s) will have the prerogative to review, via audit, the participating hospitals' admission/readmission experience to ensure pre and post experiment comparability.

COMMENT

Per diem reimbursement serves as an incentive for extending LOS, therefore the importance of Utilization Review, to minimize this inherent incentive. A per-case reimbursement methodology negates this incentive requiring a shift in focus to admission review. The audit process is intended to satisfy the payor(s) concern that providers may maximize their revenue by discharging a multi-problem case and immediately readmit the same patient with another diagnosis.

4. Where patients have been shifted from an inpatient to an outpatient treatment basis during the experiment, the hospital will be paid at a percentage of the corresponding inpatient DRG rate, depending on the inpatient length of stay of that case. this as follows:

- 1 - day of stay = 100% DRG rate
- 2 - day of stay - 100% DRG rate
- 3 - day of stay - 75% DRG rate
- 4 - day of stay - 75% DRG rate

Each provider will establish with the payors a protocol to identify those cases (DRGs) and costs that will be affected by this feature. The payors will have the right to review, via audit, all such ambulatory cases for their appropriateness for inclusion as an element of this experiment.

5. Cases of deaths should remain in the data base for rate computation, the hospital shall be reimbursed the full DRG-specific payment for such discharges. These cases will also be monitored for changes in volume or types.

COMMENT

While it appears true that some cases, predominately deaths and transfers, materially distort some DRG mean costs, the hospitals feel that only those

cases, including deaths and transfers, that meet the test for an outlier (2.0 standard deviations) should be excluded.

6. In the event of multiple 3rd-party payors for a single case, reimbursement by each payor shall be a fraction of the DRG-specific rate proportionate to the number of patient days covered by that third party.

COMMENT

A payment process to simplify the handling of multiple coverage patients during the duration of this experiment.

7. Outliers, as mentioned in features 1 and 6, should encompass all cases and be the resultant product of the application of 2.0 standard deviations to the entire population range as a function of cost. These cases jointly reviewed by the hospital and Blue Cross, and subject to audit, should be paid prospective per diem rates (DRG #385, outliers)

COMMENT

The current impression of outliers and the mean's sensitivity to their inclusion in the population base must continue to be studied. The tendency to include deaths and transfers as outliers should be avoided. As an alternative, careful review of these cases should facilitate the refinement of the definition of a true outlier.

8. Payments shall be made under a formula similar to Medicare's periodic interim payment (PIP) mechanism. The base to establish these interim rates shall incorporate all cases, outliers, deaths and transfers included. There will be a semi-annual review of DRG rates in order to minimize the risk to hospitals due to sudden shifts in case mix or payor participants miscalculations.

COMMENT

This will assure an even cash flow to participants.

9. Consideration should be given to the separate funding of a joint project to review and refine progress achieved in developing a responsibility (management) accounting system. (Appendix II) (This feature may be evaluated separately from the basic experiment. A budget, outlining the resources required to implement this system will be available in the near future.)

COMMENT

Normally a review of DRG rates could only be accomplished annually.

However, if this experiment is to have greater aspirations it should incorporate an internal hospital management review process that pinpoints DRG movement on a timely basis. NYH has been developing such a report, designed on the operating center concept that could be structured to achieve this objective.

10. Appeals to adjust DRG rates will be as provided under Part 86.16 and 17, given the obvious exception of appeals predicated upon case mix and will be heard by the management committee.

COMMENT

To protect the hospital from external changes not incorporated into this project, the hospitals should have the same rights as hospitals participating in Part 86.1.

11. To facilitate the hospital's achievement of feature #5, capital applications required to shift inpatient cases to an ambulatory setting shall be expeditiously processed by administrative review in the office of OHSN.

COMMENT

An incentive to shift inpatient cases to an ambulatory setting is provided in feature #5. As mentioned, active promotion of an ambulatory surgery program quickly comes to mind. Therefore hospitals would require renovation of existing space to facilitate an intensive effort in this regard.

12. While this proposal is being submitted to Blue Cross/Blue Shield of Greater New York, it is the participants' position that in addition to Blue Cross, Medicaid must participate, and if possible, Medicare as well.

COMMENT

Participation by as many cost-related payors as possible, will not only promote administrative efficiency, but ensure evaluation of the cross-subsidization issue.

13. The duration of the experiment shall be three (3) years. During the course of this experiment, there will be periodic meetings to evaluate progress, etc. and consider any mutually agreed upon refinements. The structure and composition of the review committee will be representative and will be identified in the near future. Obviously the variety of, or lack of, payor participation will preclude a final statement. A three (3) month simulation period will precede the actual implementation of this experiment which is January 1, 1980.

COMMENT

The hypotheses proposed and features outlined, will take at least a year to begin to develop trend data let alone begin to achieve the desired impact.

14. In consideration of participating in this experiment, criteria will be utilized for the four participants to minimize any penalties caused by a return to the then existing reimbursement method.

COMMENT

Presuming this experiment will be somewhat successful, participants may be at a distinct disadvantage if ever regrouped and compared to non-participating hospitals; especially if the per diem is still in existence.

#15  
Risk Sharing Revenue Computation:

In order to properly determine the net excess or loss of a provider's revenue due to the experiment, the following computation must be made yearly.

STEP 1 - The following computation will be performed to arrive at weighted patient days, which will represent the number of patient days a provider would have had if it had not entered the experiment. This computation is performed for each DRG by taking the actual number of rate year cases (1980) multiplied by the provider's adjusted\* base year length of stay (1978) for each individual DRG.

STEP 2 - The sum of the weighted patient days for the rate year is adjusted to reflect the change in service intensity between the rate year and the base year, by multiplying the weighted patient days by the ratio between the provider's rate year DRG weights, to its base year DRG weights.

STEP 3 - The adjusted rate year patient days would then be multiplied by the regular Blue Cross per diem calculated as if the provider was not in the experiment. This product represents the reimbursement amount which the provider would have obtained if it was not participating in the experiment.

STEP 4 - The theoretical reimbursement revenue is then compared to the revenue achieved in the experiment. The revenue achieved during the experiment would be based upon the actual rate year DRG cases multiplied by the respective DRG reimbursement rates.

STEP 5 - If the per case payment mechanism generates a reimbursement total higher than the theoretical reimbursement amount, the Hospital shall be permitted to retain 2/3 of the difference to a maximum of 2/3 of 12% or 8%. If the per case payment mechanism generates a reimbursement total lower than the theoretical reimbursement, the Hospital shall lose 1/3 of the difference to a maximum of 2/3 of 6% or 4%.

\* Base year Length of Stay will be adjusted by the following deflators:

For rate year 1980	- 3%	(1978 Base Year)
" " " 1981	- 2%	(1979 " " )
" " " 1982	- 1%	(1980 " " )

REIMBURSEMENT EXPERIMENT

CASE #1

<u>DRG #</u>	<u>1980 DRG Cases</u>		<u>1978 Length of Stay</u>	<u>Length of Stay Deflator</u>	<u>Adjusted Length of Stay</u>	<u>Weighted Patient Days</u>
16	- 1,200	x	( 14	x 97%	= 13.58 )	16,295
35	- 5,200	x	( 13	x 97%	= 12.61 )	65,572
10	- 3,000	x	( 10	x 97%	= 9.70 )	29,100
	<u>9,400</u>					<u>110,958</u>

1980 DRG Weights 48,410 = 1.03

1978 DRG Weights 47,000

Adjusted Patient Days 114,297

1980 Blue Cross Per Diem \$ 320

Reimbursement \$36,575,040 (A)

<u>DRG #</u>	<u>1980 DRG Cases</u>		<u>DRG Rate</u>	
16	- 1,200	x	\$4,900 =	\$ 5,880,000
35	- 5,200	x	\$4,200 =	\$21,840,000
10	- 3,000	x	\$3,700 =	\$11,000,000
				<u>\$38,820,000</u>

Excess \$ 2,244,960

Hospital Share 2/3 (max. of 8% of Line IA) \$ 1,496,640 (B)

1980 Hospital Revenue (A & B) 38,071,680

REIMBURSEMENT EXPERIMENT

CASE #2

<u>DRG #</u>		<u>1980 DRG Cases</u>		<u>1979 Length of Stay</u>		<u>Length of Stay Deflator</u>		<u>Adjusted Length of Stay</u>		<u>Weighted Patient Days</u>
16	-	1,000	x	(14	x	97%	=	13.58)	=	13,580
35	-	4,500	x	(13	x	97%	=	12.61)	=	56,745
10	-	3,700	x	(10	x	97%	=	9.70)	=	35,890
		<u>9,200</u>								<u>106,215</u>
1980 DRG Weights										46,500
1978 DRG Weights										47,000
Adjusted Patient Days										105,153
1980 Blue Cross Per Diem										\$320
<u>Reimbursement</u>										<u>\$33,648,960 (C)</u>

<u>DRG #</u>		<u>1980 DRG Cases</u>		<u>DRG Rate</u>		
16	-	1,000	x	\$4,300	\$ 4,300,000	
35	-	4,500	x	\$4,000	\$18,000,000	
10	-	3,700	x	\$3,000	\$11,100,000	
					<u>\$33,400,000</u>	\$33,400,000 (A)
<u>Loss</u>						<u>248,960</u>
Recovery of 2/3 of loss (max. of 4% of line C)						\$ 165,973 (B)
<u>1980 Hospital Blue Cross Revenue (A &amp; B)</u>						<u>\$33,565,973</u>