CASES in HEALTHCARE FINANCE

FOURTH EDITION

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EXHIBIT 3.2
Rio Grande Medical Center:
Dialysis Center (DC)
and Outpatient Clinic (OC)
Summary Projections

P&L Statements:	Without Expansion		With Expansion			
			Initial Allocation		Alternative Allocation	
	DC	OC	DC	OC	DC	OC
Revenues/Direct Costs						
Total revenues	$ 2,700,000	$16,000,000	$ 2,700,000	$20,000,000	$ 2,700,000	$20,000,000
Direct expenses	2,100,000	9,833,155	2,100,000	12,291,444	2,100,000	12,291,444
Contribution margin	$ 600,000	$ 6,166,845	$ 600,000	$ 7,708,556	$ 600,000	$ 7,708,556
Percent of revenues	22.2%	38.5%	22.2%	38.5%	22.2%	38.5%
Indirect Costs						
Facilities costs	$ 300,000	$ 1,200,000	$ 400,000	$ 1,500,000	$	$
General overhead	270,000	1,600,000	270,000	2,000,000		
Total overhead	$ 570,000	$ 2,800,000	$ 670,000	$ 3,500,000	$	$
Net profit	$ 30,000	$ 3,366,845	($ 70,000)	$ 4,208,556	$	$
Percent of revenues	1.1%	21.0%	(2.6%)	21.0%	%	%
Facilities Cost Allocation:						
Square footage	20,000	80,000	20,000	100,000	20,000	100,000
Facilities costs per square foot	$ 15.00	$ 15.00	$ 20.00	$ 15.00	$	$
Other Overhead Allocation:						
General overhead costs as a % of revenue	10.0%	10.0%	10.0%	10.0%	%	%

Note: The term "contribution margin" as used here means the amount available to cover overhead costs, as opposed to the traditional meaning of the amount available to cover fixed costs.

EXHIBIT 3.1
Rio Grande Medical Center Dialysis Center: Pro Forma P&L Statement Assuming Status Quo

Revenues	
Hemodialysis program	$ 1,300,000
Peritoneal dialysis program	600,000
Pharmaceutical supplies	800,000
Total revenues	$ 2,700,000
Direct Expenses	
Salaries and benefits	$ 900,000
Pharmaceutical supplies	800,000
Other medical/administrative supplies	100,000
Utilities	80,000
Lease expense	120,000
Other expenses	100,000
Total expenses	$ 2,100,000
Net gain (loss) before indirect costs	$ 600,000
Indirect Expenses	
Facilities costs	$ 300,000
General overhead	270,000
Total overhead costs	$ 570,000
Net profit	$ 30,000

Note: Pharmacy revenues are based on reimbursement amounts, not costs.

4. The revenue that the Dialysis Center "receives" from patient use of the pharmacy appears to be passed on directly to the pharmacy. That is, the Dialysis Center books $800,000 in annual revenue but then is charged $800,000 for the drugs used. Should this "revenue" be counted when general overhead allocations are made? To make his point, John discovered that the pharmacy supplies used for dialysis actually cost the pharmacy $400,000, so the pharmacy makes a profit of $400,000 on drugs that are actually "sold" by the Dialysis Center.

Before Rick was able to respond to John's concerns, he suddenly left Rio Grande to be the CFO of a competing investor-owned hospital. The task of completing the allocation study was given to you, Rio Grande's current administrative resident. You remember that to be of most benefit to the organization, cost allocations should (1) be perceived as being fair by the parties involved and (2) promote overall cost savings within the organization. However, you also realize that in practice cost allocation is complex and somewhat arbitrary. Some department heads argue that the best approach to overhead allocations is the "Marxist approach," by which allocations are based on each patient service department's ability to cover overhead costs.

Considering all the relevant issues, you must develop and justify a new indirect cost allocation scheme for outpatient services. Summarize your results in the "Alternative Allocation" columns in Exhibit 3.2, and be prepared to justify your recommendations at the next department heads' meeting.

increase by a like amount. Furthermore, to keep the analysis manageable, the assumption was made that the overall hospital allocation rates for both facilities costs and general overhead would not materially change because of the expansion.

Rick knew that his "trial balloon" allocation, which is shown in Exhibit 3.2 in the columns labeled "Initial Allocation," would create some controversy. In the past, facilities costs were aggregated, so all departments were charged a cost based on the average embedded (historical) cost regardless of the actual age (or value) of the space occupied. Thus, a basement room with no windows was allocated the same facilities costs (per square foot) as was the fifth floor executive suite. Because many department heads thought this approach was unfair, Rick wanted to begin allocating facilities overhead on a true cost basis. Thus, in his initial allocation, Rick used actual facilities costs as the basis for the allocation to the Dialysis Center.

Needless to say, John's response to the initial allocation was less than enthusiastic. Specifically, he raised these points:

1. Is it fair for the Dialysis Center to suffer (in profitability) from the move even though it had nothing to do with it?
2. Should the Dialysis Center be charged actual facilities costs for its new location? After all, the move was forced by the Outpatient Clinic, which is being charged for facilities at the lower average allocation rate. Under the concept of charging for actual facilities costs, department heads might be better off resisting proposed moves to new (and potentially more efficient) facilities because such moves would result in increased facilities allocations.
3. Even if the true cost concept were applied to the Dialysis Center, is the $400,000 annual allocation amount correct? After all, the building has a useful life that is probably significantly longer than 10 years – the life of the loan used to determine the allocation amount. If the true cost concept is applied, what would be the allocation in the 21st year, after the mortgage had been paid off?

mortgage loan. When both the principal amount (which can be considered depreciation) and interest are amortized over 20 years, the end result is an annual cost of financing of $400,000. Thus, it is possible to estimate the actual annual facilities costs for the new Dialysis Center, something that is not possible for units located within the hospital complex.

Exhibit 3.1 contains the projected profit and loss (P&L) statement for the Dialysis Center before adjusting for the move. Rio Grande's department heads receive annual bonuses on the basis of each department's contribution to the hospital's bottom line (profit). In the past, only direct costs were considered, but Rio Grande's CEO has decided that bonuses would now be based on full (total) costs.

The new approach to awarding bonuses, coupled with the potential for increases in indirect cost allocation, is of great concern to John Van Pelt, the director of the Dialysis Center. Under the current allocation of indirect costs (see Exhibit 3.1), John would have a reasonable chance at an end-of-year bonus, as the forecast puts the Dialysis Center in the black. However, any increase in the indirect cost allocation would likely put him out of the money.

At the next department heads' meeting, John voiced his concern about the impact of any allocation changes on the Dialysis Center's profitability, so Rio Grande's CEO asked the chief financial officer (CFO), Rick Simmons, to look into the matter. In essence, the CEO said that the final allocation is up to Rick but that any allocation changes must be made within outpatient services. In other words, any change in indirect cost allocation to the Dialysis Center must be offset by an equal, but opposite, change in the allocation to the Outpatient Clinic.

To get started, Rick created Exhibit 3.2. In creating the exhibit, Rick assumed that the new Dialysis Center would have the same number of stations as the old one, would serve the same number of patients, and would receive the same reimbursement rates. Also, direct operating expenses would differ only slightly from the current situation because the same personnel and equipment would be used. Thus, for all practical purposes, the revenues and direct costs of the Dialysis Center would be unaffected by the move.

The data in Exhibit 3.2 for the expanded Outpatient Clinic are based on the assumption that the expansion would allow volume to increase by 25 percent and that both revenues and direct costs would

or automatically by machine when sleeping. However, the patient's overall condition, as well as the positioning of the catheter, must be monitored regularly at the Dialysis Center.

Rio Grande's new cost accounting system, which was installed two years ago, allocates facilities costs (which at Rio Grande essentially consist of building depreciation and interest on long-term debt) on the basis of square footage. Currently, the facilities cost allocation rate is $15 per square foot, so the facilities cost allocation is 20,000 x $15 = $300,000 for the Dialysis Center and 80,000 x $15 = $1,200,000 for the Outpatient Clinic. All other overhead costs, such as administration, finance, maintenance, and housekeeping, are lumped together and called "general overhead." These costs are allocated on the basis of 10 percent of the revenues of each patient service department. The current allocation of general overhead is $270,000 for the Dialysis Center and $1,600,000 for the Outpatient Clinic, which results in total overhead allocations of $570,000 for the Dialysis Center and $2,800,000 for the Outpatient Clinic.

Recent growth in volume of the Outpatient Clinic has created a need for 25 percent more space than is currently assigned. Because the Outpatient Clinic is much larger than the Dialysis Center, and because its patients need frequent access to other departments within the hospital, the decision was made to keep the Outpatient Clinic in its current location and to move the Dialysis Center to another location to free up space within the hospital complex. Such a move would give the Outpatient Clinic 100,000 square feet, a 25 percent increase.

After attempting to find space for the Dialysis Center within the hospital complex, it was soon determined that a new 20,000-square-foot building must be built. This building would be situated three blocks away from the hospital complex, in a location that would be much more convenient for dialysis patients (and Center employees) because of ease of parking. The 20,000 square feet of space, which can be more efficiently used than the old space, allows for some increase in patient volume, although it is unclear whether or not the move will generate additional dialysis patients.

Construction cost of the new building is estimated at $120 per square foot, for a total cost of $2,400,000. Additionally, land, furniture, and other fittings, along with relocation of equipment, files, and other items, would cost $1,600,000, for a total cost of $4,000,000. The $4,000,000 cost would be financed by a 7.75 percent, 20-year first-

RIO GRANDE MEDICAL CENTER

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COST ALLOCATION CONCEPTS

Rio Grande Medical Center is a full-service not-for-profit acute care hospital with 325 beds located in Rio Grande, Texas. The bulk of the hospital's facilities are devoted to inpatient care and emergency services. However, a 100,000-square-foot section of the hospital complex is devoted to outpatient services. Currently, this space has two primary uses. About 80 percent of the space is used by the Outpatient Clinic, which handles all routine outpatient services offered by the hospital. The remaining 20 percent is used by the Dialysis Center.

The Dialysis Center performs hemodialysis and peritoneal dialysis, which are alternative processes that remove wastes and excess water from the blood for patients with end-stage renal (kidney) disease. In hemodialysis, blood is pumped from the patient's arm through a shunt into a dialysis machine, which uses a cleansing solution and an artificial membrane to perform the functions of a healthy kidney. Then, the cleansed blood is pumped back into the patient through a second shunt.

In peritoneal dialysis, the cleansing solution is inserted directly into the abdominal cavity through a catheter. The body naturally cleanses the blood through the peritoneum—a thin membrane that lines the abdominal cavity.

Typically, hemodialysis patients require three dialyses a week, with each treatment lasting about four hours. Patients who use peritoneal dialysis change their own cleansing solutions at home, usually about six times per day. This procedure can be done manually when active