Week 6_ WS_2

Activity based costing

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QUESTION 1: ACME HOSPITAL CASE

Acme Hospital plc operates in the market for routine medical and surgical procedures. The amount charged for a procedure is based on the cost of the procedure. This cost is currently determined by using an average cost per client bed-day which is calculated by dividing the total budgeted expense for the hospital by the expected number of client bed-days for the year. This average rate is then multiplied by a factor of 0.7 for medical procedures and 1.2 for surgical procedures to reflect the general manager's perception of the relative use of resources for the procedures. The procedure for costing is recognized to be no longer adequate and manager wishes to introduce an activity-based approach.

QUESTION 1: BUDGET EXPENSES

Surgical consultants' and registrar's salaries	420
Medical consultants' and registrar's salaries	210
Operating theatre staff salaries	200
Nursing staff salaries	720
Laboratory staff salaries	120
Administration and general costs	300
Admission staff salaries	36
Occupancy costs	750
Ward supplies	250
Theatre supplies	150
Laboratory supplies	25
Total	**3181**

QUESTION 1: BUDGET DATA

Number of operation hours	1250
Number of admissions	1400
Number of specimens processed	15000
Number of medical consultations	2150
Area of departments	*mq*
Operating theatres and preparation rooms	250
Wards	600
Laboratory	200
Admission department	50
Administration and general	200
Total	**1300**

QUESTION 1: INFORMATION NOTES

Activities for medical procedure:

• admission procedure

• examination/consultation by a medical consultant or registrar

• nursing and medication in a ward

• specimens processing in the laboratory

Activities for a surgical procedure:

• admission procedure

• operating theatre procedure

• nursing and medication in a ward

• specimen processing in the laboratory

QUESTION 1: REQUIRED

A) Calculate appropriate cost drivers transaction rates for the hospital;

B) using the rates calculated in a), determine the activity based cost for the following clients' treatment:

i) a medical client spent 10 days in the hospital, was seen by doctors for a total of 2 hrs and had 26 speciments tested

Ii) a surgical client spent 4 days in the hospital, 3 hrs in the operating theatre and had 6 specimens tested

C) Using the existing costing process, calculate for the two treatments specified in b)

D) What benefist and costs would accrue to the hospital if it adopted the ABC?

SOLUTION PROBLEM 1: A)

	Admi	Ward	Med.	Thea.	Lab	A&G
Surgical consul. salaries				420		
Medical consul. salaries			210			
Op. theatre staff				200		
Nursing staff		720				
Laboratory staff					120	
A & G costs						300
Admission	36					
Occupancy	29	347		144	115	115
Ward supplies		250				
Theatre supplies				150		
Lab. supplies					25	
Total	**65**	**1317**	**210**	**914**	**260**	**415**

SOLUTION PROBLEM 1: A)

Driver transaction rates	
Adminission	£65000/1400= £46.43 per ad.
Wards:	Client bed days: 24*365*0.75= 6570 £ 1317000/6570= £200.46 per client bed-day
Medical consultation	£210000/2150= £ 97.67 c/h
Theatre	£914000/1250= £731.2 t/h
Lab	£ 260000/15000= £ 17.33 per specimen
Admistration and Gen	(£415/£3181-415))*100= 15% of other costs

SOLUTION PROBLEM 1: B)

First client	Adminission	46.43
	Wards: 10 days at £ 200.46	2004.6
	Med. Cons. 2hr at £ 97.67	195.34
	Lab, 26 spec. At £ 17.3	450.58
	Sub Total	*2696.95*
	Admist and Gen at 15%	404.54
	Total	***3101.49***
Second client	Adminission	46.43
	Wards: 4 days at £ 200.46	801.84
	Theatre, 3 hr at £ 731.20	2193.60
	Lab, 6 spec. At £ 17.3	103.98
	Sub Total	*3145.85*
	Admist and Gen at 15%	471.88
	Total	***3617.73***

SOLUTION PROBLEM 1: c)

DAILY RATE	£ 3181000/6570 =	£ 484.17
MEDICAL	£ 484.17*0.7 =	£ 338.92
SURGICAL	£ 484.17*1.2 =	£ 581.00

Cost for first client	10*338.92=	£ 3389.20
Cost for second client	4*581.00=	£ 2324.00