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A Study And Discussion On ABC Analysis Of Stores At Nizam's Institute Of Medical Sciences, A 1300 Bedded Tertiary Care Teaching Hospital At Hyderabad.

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Abstract: *ABC analysis is an important tool used worldwide, identifying items that need greater attention for control. . It is also known as "separating the vital few from trivial many". The study was conducted in the cath lab stores of Nizam's Institute of Medical Sciences, a 1300 bedded tertiary care teaching hospital in Hyderabad. The following results were observed*
A class items – 18 items contributing 63 % of consumption value
B class items – 36 items contributing 28 % of consumption value
C class items – 124 items contributing 9 % of consumption value
Key words: *ABC analysis, Inventory Control*

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I. Introduction

A study conducted by the Department of Personnel and Administrative Reforms in India has revealed that not only does the quantity of medicines received fall short of the requirement but also the supply is often erratic. Even common medicines are out of stock and remain so for a considerable period6. Materials today are the life blood of industry without which no organization can operate.ABC analysis is an important tool used worldwide, identifying items that need greater attention for control 1. Before an inventory management is done, an ABC classification is usually undertaken 2. ABC analysis is a method of classifying items according to their relative importance5. It is also known as "separating the vital few from trivial many" 1. ABC analysis identifies the drugs requiring stringent control for optimal use of funds and elimination of out-of-stock situations in the pharmacy 3

This technique is popularly known as "Always Better Control" or "Alphabetical Approach" or "Pareto's Law". Pareto [1897], an Italian Philosopher, economist and sociological observed that a "very large percentage of total national income and wealth was concentrated in a small percentage of the population'

The analysis classifies the items into three categories: the first 10-15% of the items account for approximately 70% of cumulative value (cost) (category A), 20-25% are category B items that account for a further 20% of the cumulative value and the remaining 65-70% are category C items, amounting for a mere 10% of the total value7-13

II. Methodology

The study was conducted in the cath lab stores of Nizam's Institute of Medical Sciences, a 1300 bedded tertiary care teaching hospital in Hyderabad. Primary data was collected from the stock registers maintained in the stores by making use of the format

s.	Item	Opening balance	Receipt	Issues	Closing balance	Unit price

To conduct ABC analysis the following procedure was adopted

1. The consumption value for each item is arranged in descending order

2. The cumulative annual consumption value is computed for each item

Observations:

A- Class items: 10 % of items contributing 63% of the consumption value
B- Class items: 20 % of items contributing 28% of the consumption value
C- Class items:70 % of items contributing 9% of the consumption value

Distribution values of consumption of Cath lab stores Inventory

S.no	Items	Class of items	% of items	Value of consumption	Consumption value %
1	18	A	10	56313839	63
2	36	B	20	25165853	28
3	124	C	70	8019606	9
Total	178		100	89499298	100

Selective Control Procedures for ABC Items4

CONTROL	A-ITEMS	B-ITEMS	C-ITEMS
Type of control and Authority	Very strict control.	Moderate control;	Low control, powers can be delegated to the user department.
Quantity of safety stock	Very low or practically nil, safety stock combined with frequent ordering and/or staggered supplies	Low safety stock ordering can be done monthly or quarterly	High safety stock and bulk ordering half yearly or annual orders to take advantage on bulk discounts
Consumption control	Regular – weekly or daily	Fortnight or a month	The period can be extended to a quarter
Material planning	Material planning should be accurate and data base should be up to date	Past consumption can be used a basis for plans data can be 10 to 15days old	Rough estimates are sufficient and data can lag behind by a month
Applications of value analysis	A concerted attempt should be made at value analysis, waste, reduction, obsolete and surplus reduction	Moderate attempts are sufficient	Annual reviews sufficient
Numbers of sources of supply	Increase the number of sources, centralize purchase and stores and reduce lead time	2 or 4 reliable sources combined purchase with moderate attempt to reduce lead time	1 or 2 reliable sources, Annual or Half yearly purchases. Decentralized and reduce clerical work
Lead time reduction	Maximum efforts should be made to reduce lead time	Moderate efforts	Minimum clerical efforts
Centralized vs. Decentralized	Centralized purchasing	Combination purchasing	Decentralized purchasing
Priority	High priorities in all activities for procurement stage	Normal processing with high priority only when critical	Lowest priority

Advantages of ABC Analysis4

1. This approach helps the materials Manager to exercise selective control and focus attention only on a few items when he is confronted with lakhs of items.
2. By controlling 'A' items and doing proper inventory analysis obsolete stocks are automatically pin pointed.
3. ABC analysis has to be resorted, because equal attention on all A, B and C items will not work and it would be very expensive to concentrate on all items and will also have diffused effect irrespective of priorities..
4. It prevents wasting of time and energy in making improvements, where improvements yield marginal benefit ('C' class items)
5. It reinforces concepts of management by exception theory.

Limitations of ABC Analysis4

1. ABC analysis, in order to be fully effective, should be carried out with standardization and codification.
2. It indicates nothing about their profitability or critically, importance to an item is given on the basis of its consumption value and not on criticality. Hence such a classification can lead to overlooking the need for spare part, whose critically is high but consumption value is low.
3. ABC analysis should be reviewed period1ically so that changes in prices, product mix and consumption are taken into account.

III. Conclusions

The total purchases of surgical stores is Rs 27 crores of which Cath lab stores amounts to Rs 9 crores. It is very difficult for the top management to control costs by concentrating on all the items.ABC analysis helps the the management to achieve savings by concentrating on the required items.

Scope for further study: A study can be done to calculate the Reorder levels , EOQ and Inventory levels of A class items.

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