



A STUDY ON INVENTORY MANAGEMENT BY DOING ABC-VED CLASSIFICATION



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INTRODUCTION:

Inventory Management is a set of policies and controls that monitors levels of inventory and determines what levels should be maintained, when stock should be replenished, and how large orders should be placed.

ABC ANALYSIS:

A-ITEMS: 10-20% items consume 70% of annual drug expenditure.

B-ITEMS: 15-25% of annual consumption value typically accounts for 30% of total inventory items.

C-ITEMS: 5-10% of the annual consumption value accounts for 70% of total inventory items.

The annual consumption value is calculated with the formula: (Annual demand) x (item cost per unit).

VED ANALYSIS:

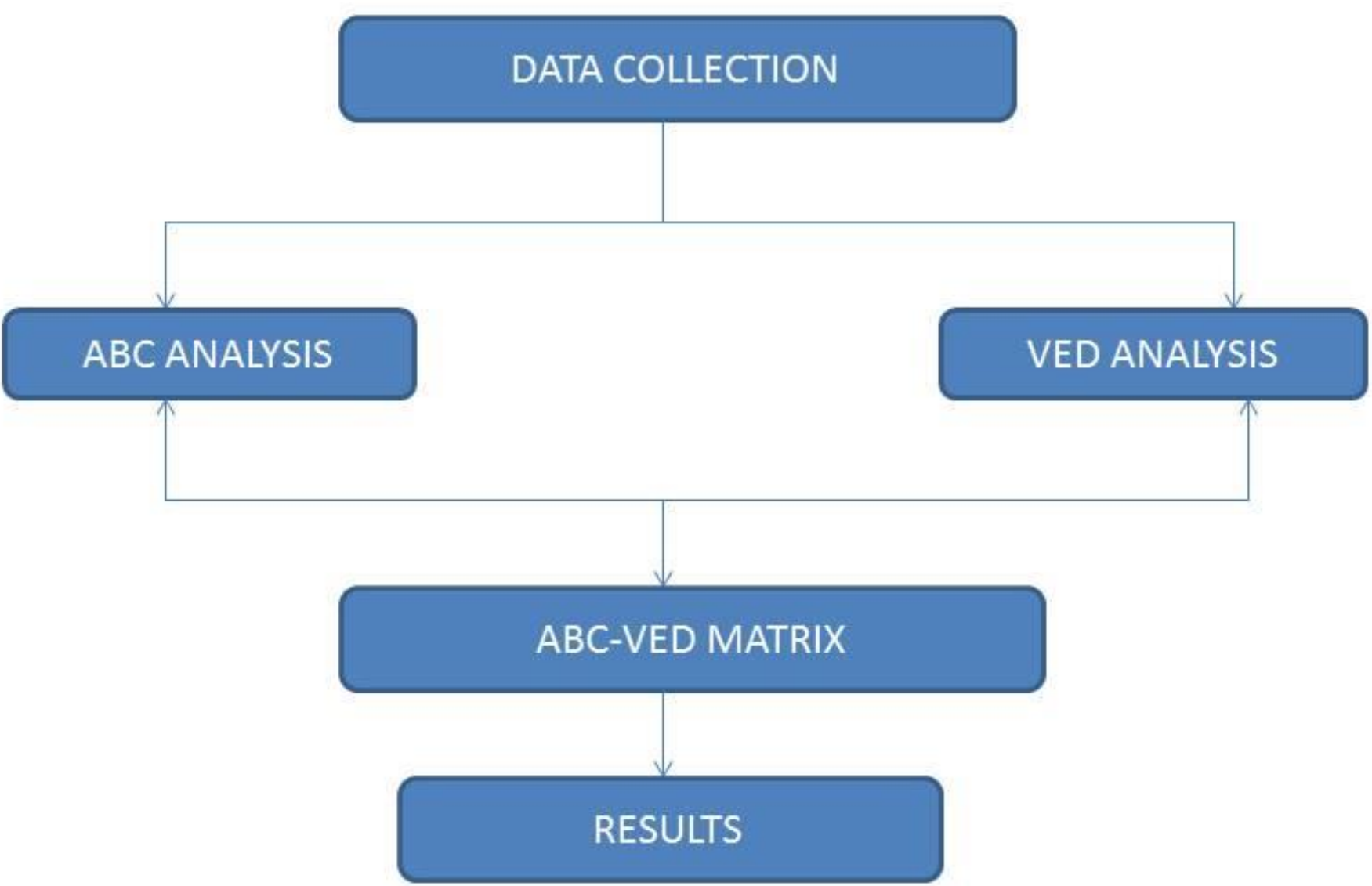
Classification of items based on their criticality.

VED (Vital – Essential – Desirable) analysis is carried out to identify critical items. An item, which usage-wise belongs to C-category, may be critical from production point of view if its stock-out cause heavy production loss.

OBJECTIVES

- To find the Annual demand of the items.
- To find the annual drug expenditure of the items.
- To conduct the ABC Analysis
- To conduct the VED Analysis
- To conduct the combined ABC- VED Classification

METHODOLOGY



RESEARCH METHODOLOGY

- Research Design: Descriptive Study
- Sample: 100 drugs taken from 9522 (approx.) drugs.
- Sampling technique: purposive sampling.
- Location of study: Fortis Escorts hospital , Jaipur
- Time period of study: 2 months
- Data collection source: Consumption report of previous year
- Data analysis: MS Excel 2013

ANALYSIS & FINDINGS

Step 1: Data Collection

A sample of 100 drugs had been taken from 9522(approx) drugs

of hospital pharmacy store through purposive sampling.

Step 2: ABC analysis

Three categories are formed in which category A contained high value drugs whereas category B contained intermediate and category C contained lower value drugs.

Step 3: VED analysis

VED analysis was performed to categorize the drugs by their critical value. Drugs that are more critical and act as life saving comes under category V whereas essential drugs whose importance is lower than V comes under category E and drugs which are used for minor or limited illness comes under category D.

Step 4: Coupling of ABC and VED analysis

	A	B	C
V	AV	BV	CV
E	AE	BE	CE
D	AD	BD	CD

Step 5: Results & discussion

On ABC analysis, 11.00%, 25.00%, 64.00% drug items have been found to be category A, B and C respectively, amounting for 71.41%, 20.13% and 8.47% of annual drug expenditure (ADE) of the pharmacy.

ABC ANALYSIS

S.R No.	Category	No. of items	Drug's item %	ADE %
1	A	11	11.00%	71.41%
2	B	25	25.00%	20.13%
3	C	64	64.00%	8.47%

RESULTS

On VED analysis,39.00%,12.00%,49.00% drug items have been found to be category V, E and D respectively, amounting for 77.23%,17.77% and 5.00% of ADE of the pharmacy.

VED ANALYSIS

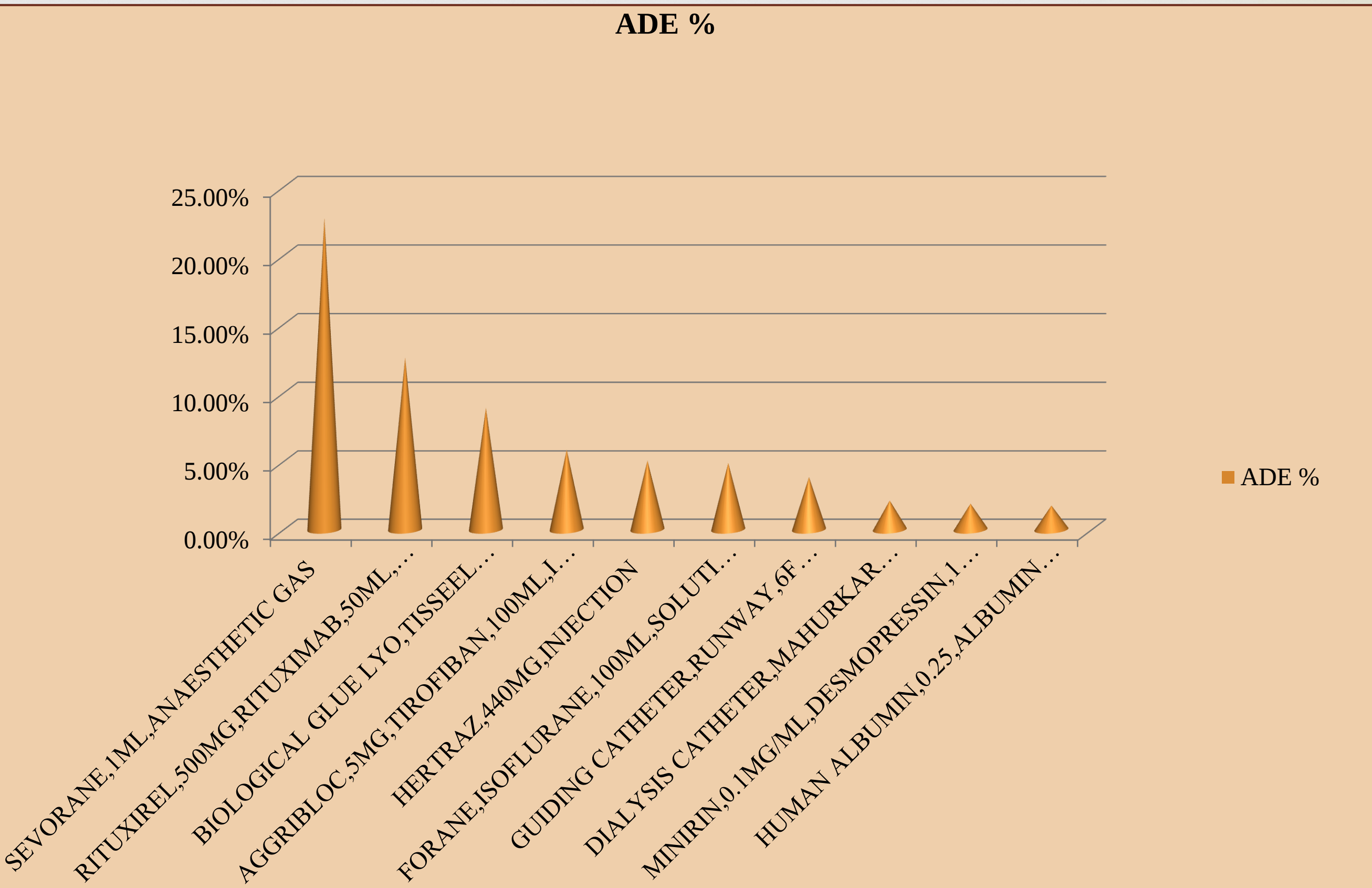
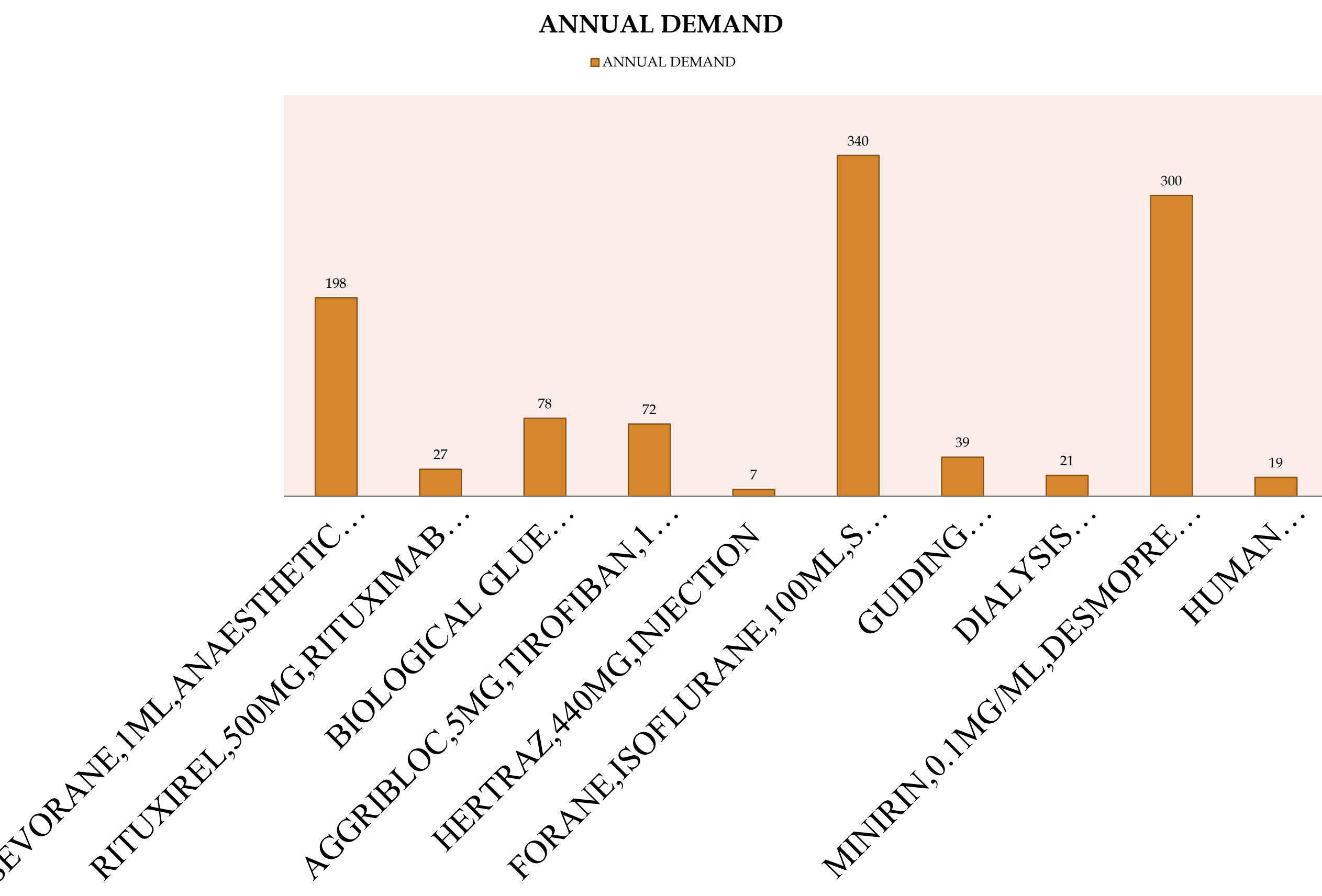
S.R No.	Category	No. of items	Drug's item %	ADE%
1	V	39	39.00%	56.23%
2	E	12	12.00%	26.44%
3	D	49	49.00%	17.33%

COMBINED ABC-VED ANALYSIS

Nine different categories (AV, BV, CV, AE, BE, CE, AD, BD, CD) have been attained by using combined ABC-VED analysis. By this analysis 8.33%, 3.83%, 10.00%,10.67%, 6.17%%, 12.33%, 17.17%,12.67%, 18.83% drugs have been found to be (AV, BV, CV, AE, BE, CE, AD, BD, CD) categories respectively, amounting for 46.26%,6.82%,16.60%,4.67%,2.16%,4.58%,3.26 %,0.23%,15.42% of ADE of the pharmacy.

SR No.	Category	No. of items	Item %	ADE%
1	AV	50	8.33%	46.26%
2	AE	23	3.83%	6.82%
3	AD	60	10.00%	16.60%
4	BV	64	10.67%	4.67%
5	BE	37	6.17%	2.16%
6	BD	74	12.33%	4.58%
7	CV	103	17.17%	3.26%
8	CE	76	12.67%	0.23%
9	CD	113	18.83%	15.42%

FINDINGS



LIMITATIONS

- Sub-stores were not there, so the system generated ROL was not being calculated.
- ROL was calculated manually.
- The sample size was 100 drugs. Results may change for the whole inventory analysis.

CONCLUSION

Inventory management tools are required for:

- Optimal management of drugs with efficient priorities
- Appropriate purchase and close supervision of drugs
- Combined ABC-VED analysis is useful for drugs need highest attention and strict control for effective and optimal use of funds and prevent stock-out situations of drugs in pharmacy store.

REFERENCES

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