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## Background and Importance

Albumin is a widely used medication for the treatment of critically ill patients such as cirrhotic, burn and neonatal patients. However, its management stills a real challenge due to the high cost and the controversial uses.

## Objectives

The aim of the present study is to determine the frequency of inappropriate albumin prescriptions according to guidelines and scientific data in a teaching hospital

## Methods

During four months period, each prescription of human albumin in our teaching hospital was reviewed according to guidelines and recommendations. Gathered data were: indication, clinical healthcare unit, patient sex and age, dosages and treatment times, albuminemia. Statistical analysis was performed by the SPSS software.

## Results

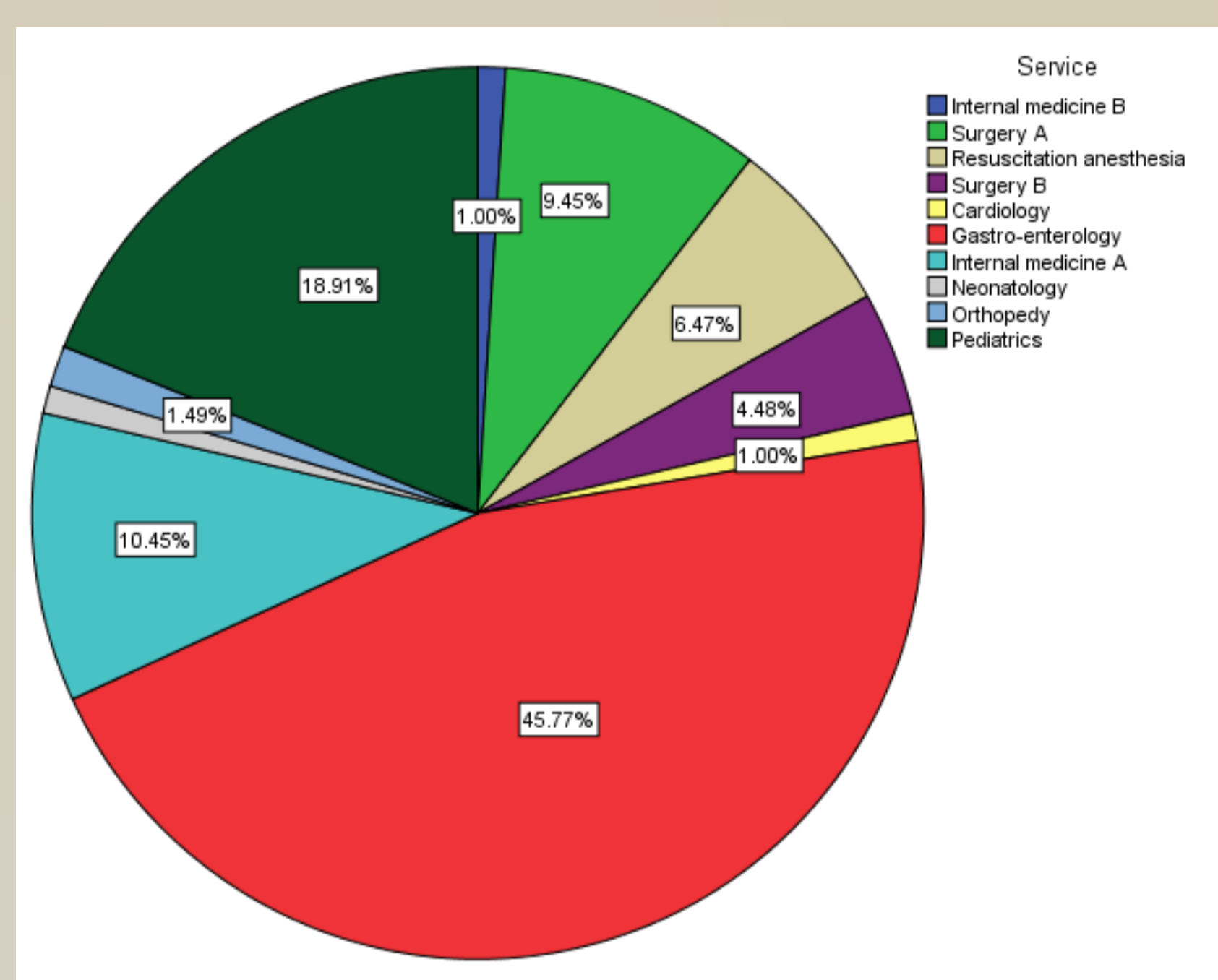
### Orders statistics

Variable	Value
N orders	201
N vials	1694
Mean albuminemia	20.84 ± 5.14 g/l
Mean dosage	3 ± 2 vial / day
Median duration of treatment	2 days (QI = 4)

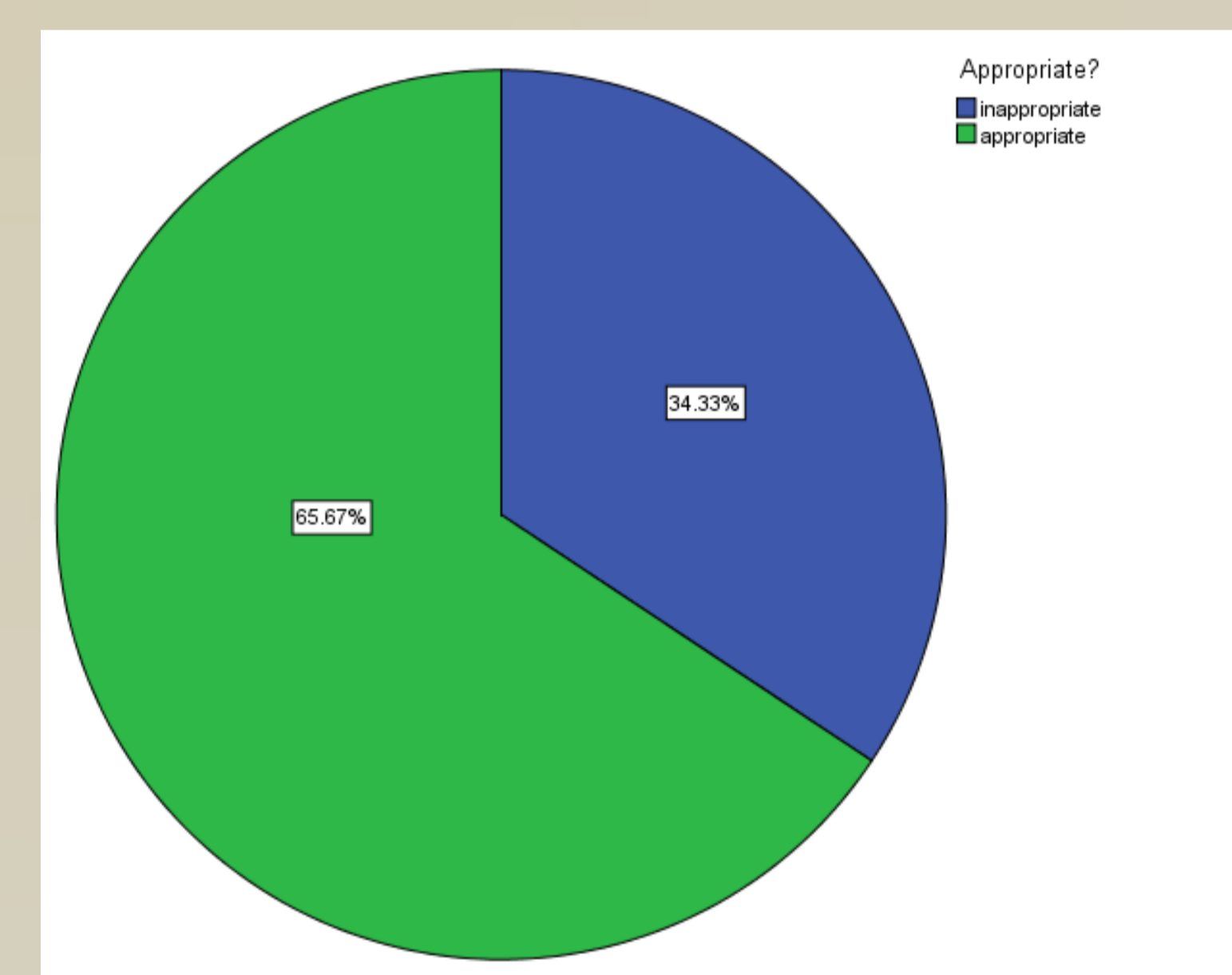
### Patients statistics

Variable	Value
N	80
Sex ratio	1.1
Mean age	45.85 ± 25.84
Mean weight	66.00 ± 11.19

### Orders per healthcare unit



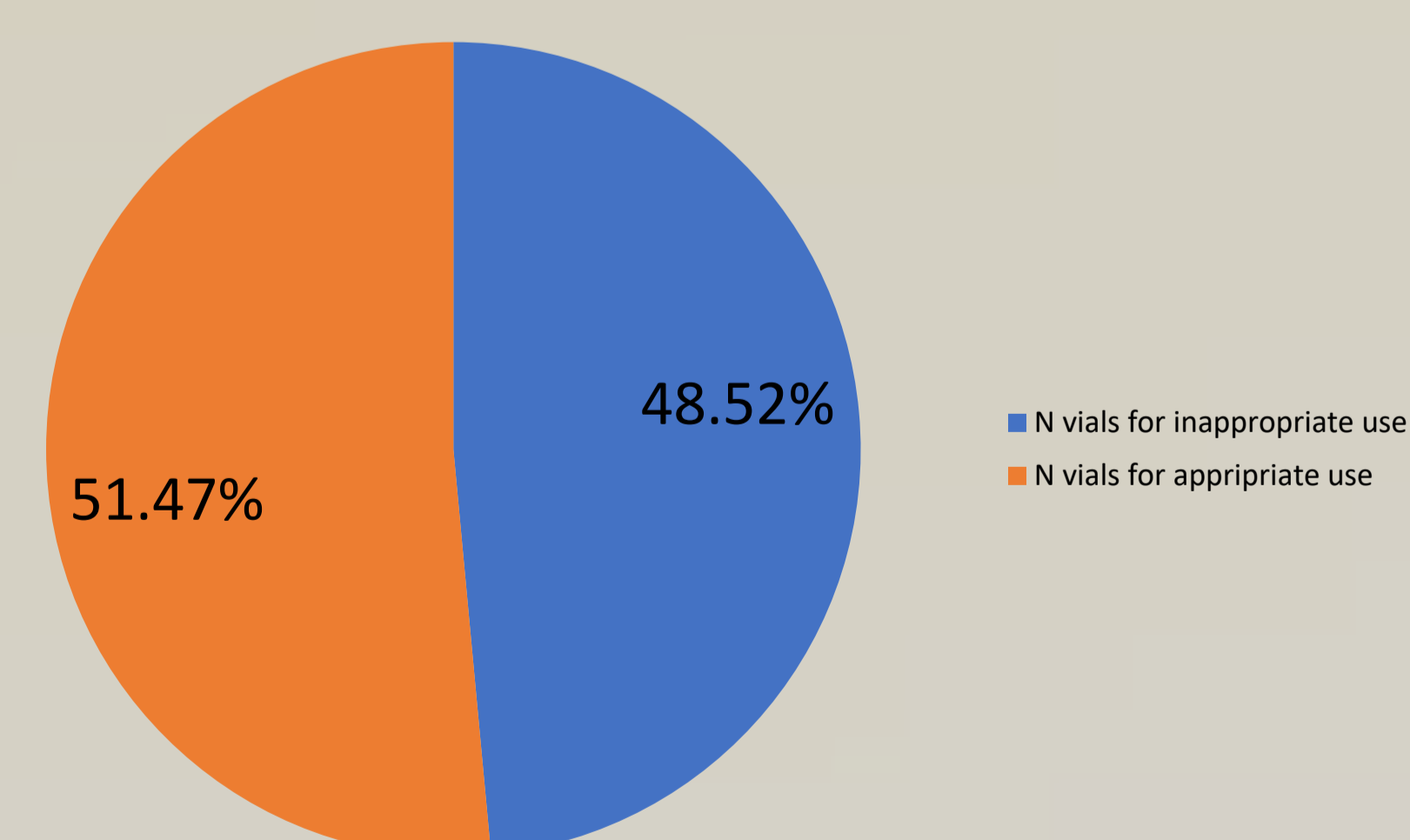
### Frequency of inappropriate use



### Main inappropriate indications

Indication	N	%
Chronic hypoalbuminaemia in the absence of oedema and/or acute hypotension	15	22
Major surgery with serum albumin > 2 g/dL	10	16
Nephrotic syndrome in patients with albumin > 2 g/dL without hypovolaemia or pulmonary oedema.	10	15
Malnutrition	8	12
Albuminaemia > 2.5 g/dL	6	9
Protein losing enteropathies and malabsorption	6	9
Non-haemorrhagic shock	5	7
Haemorrhagic shock without contraindication to the use of non-protein colloids	3	4
Wound healing	2	3
Haemodialysis	2	3

### Cost of inappropriate use



**15 thousand € for a 4-months period**

## Conclusions

This study suggests that inappropriate use of human albumin is quite common with high cost. Hence, the adoption of comprehensive guidelines may reduce the inappropriate use and the healthcare costs. In addition to that, audit and educational feedback might strengthen the results.

## References

Liumbruno G, Bennardello F, Lattanzio A, Piccoli P, Rossettias G. Recommendations for the use of albumin and immunoglobulins. Blood Transfus. juill 2009;7(3):216-34.

