



# INTRODUCTION TO THE PROBLEM

pancreatic  
cancer

starts as

mutation of  
pancreatic  
cells

which then

clumps  
together to  
form a tumor

## TYPES OF TREATMENT

Non-Curative  
Treatment

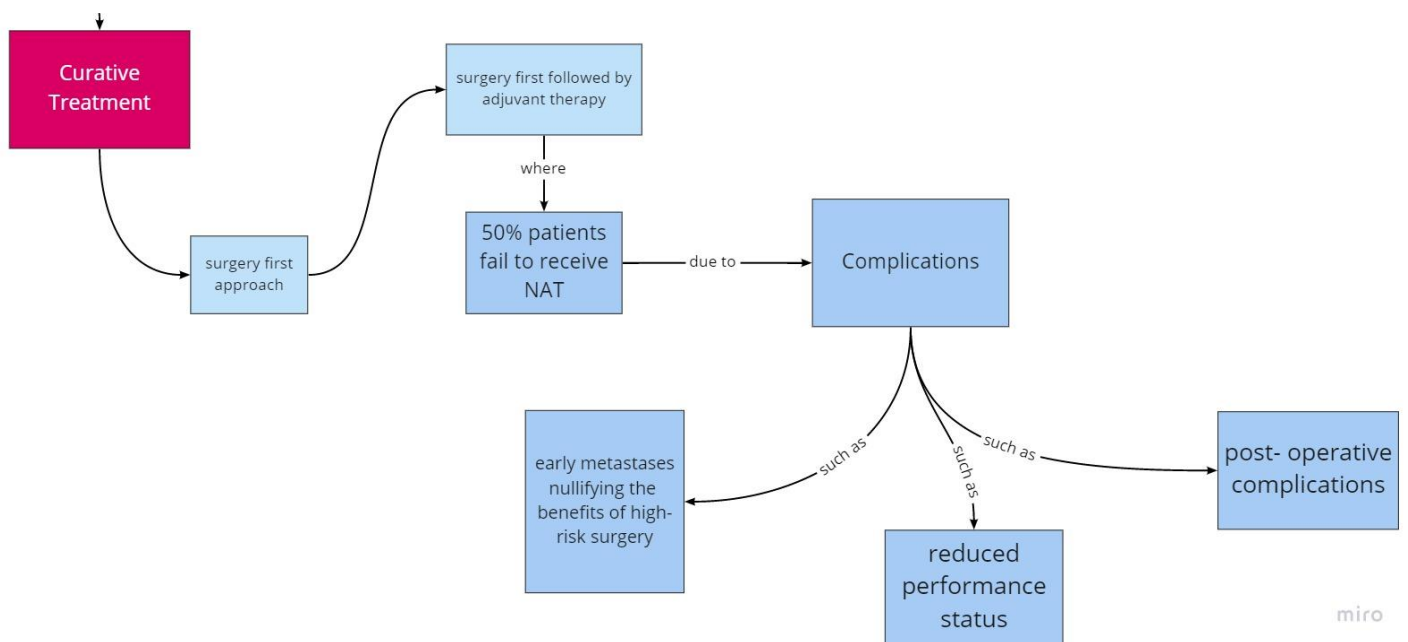
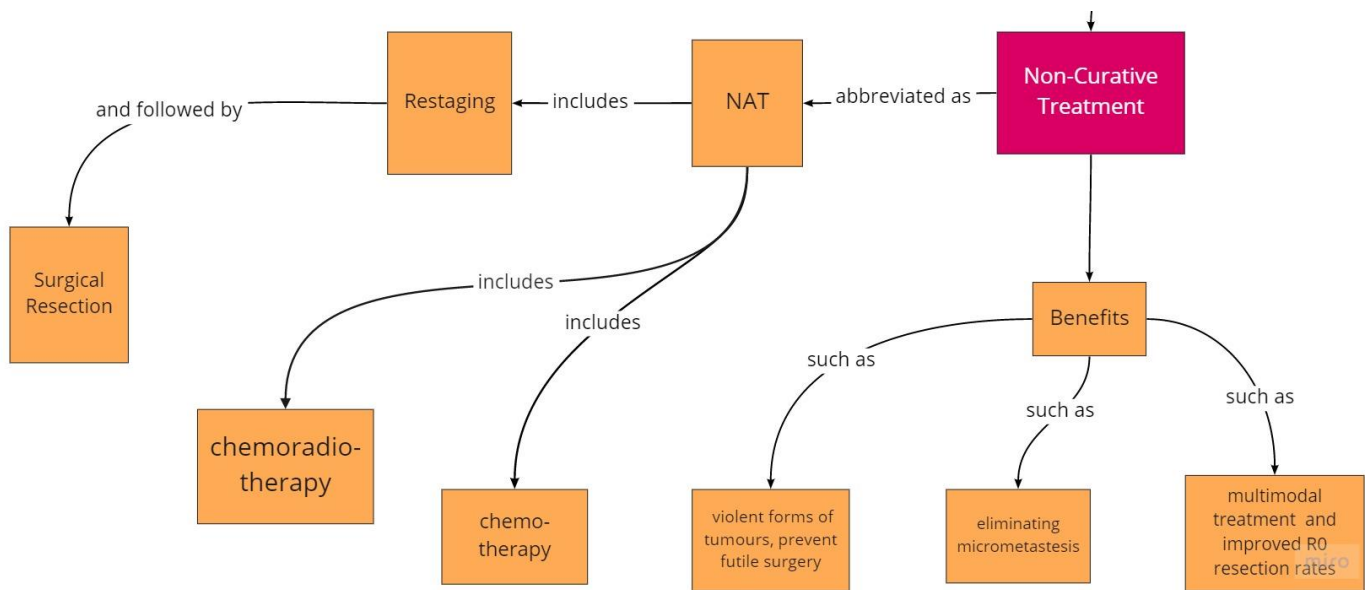
Analysis  
strategy

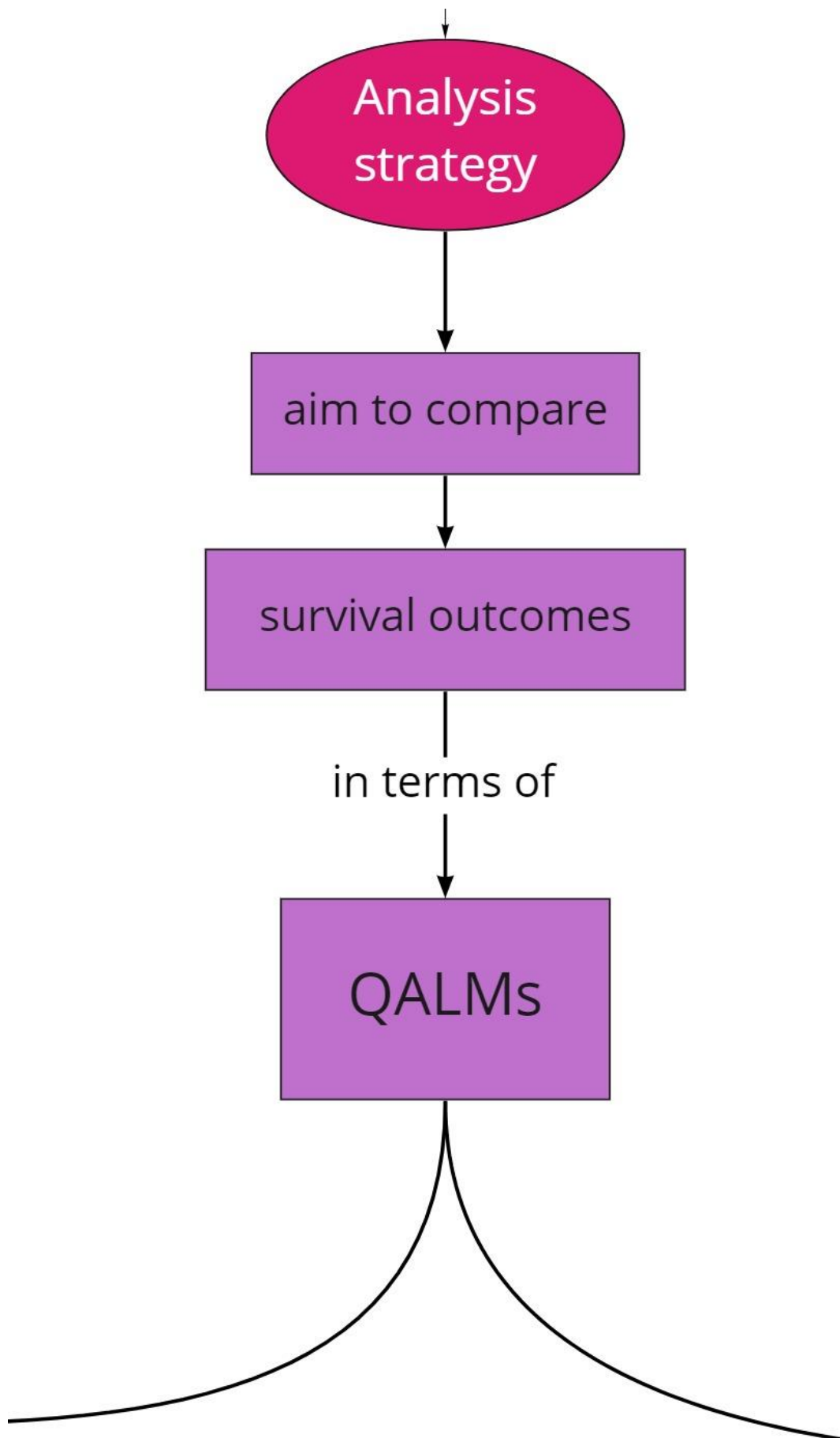
Curative  
Treatment

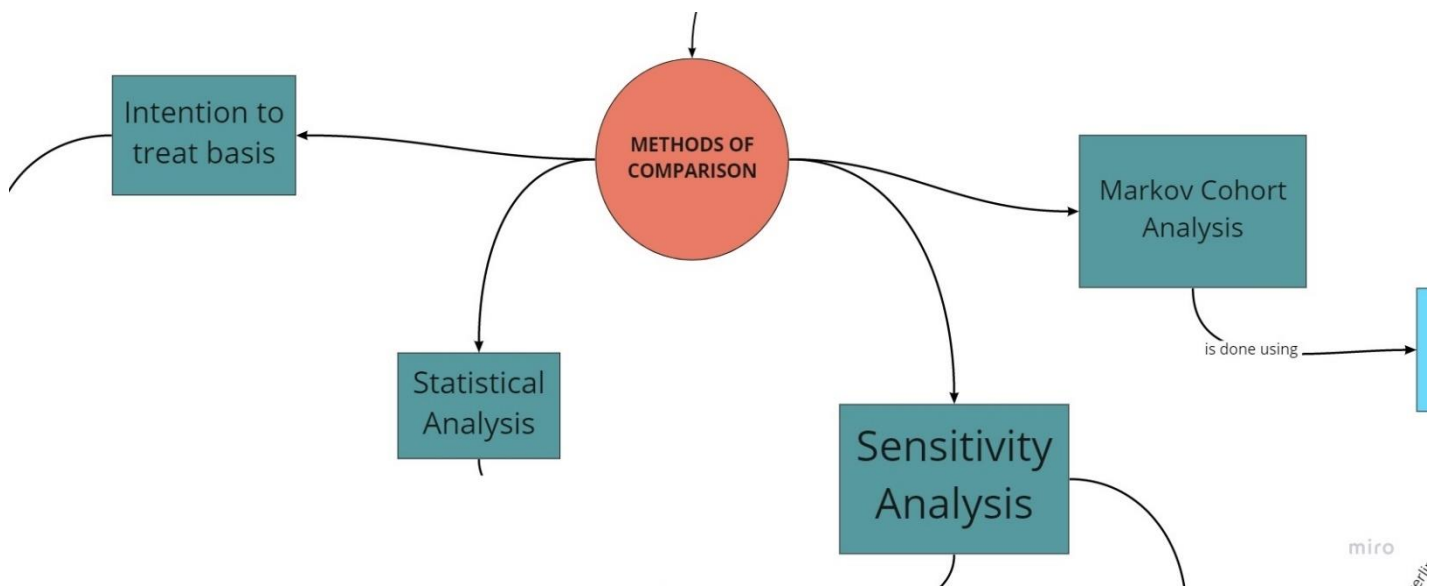
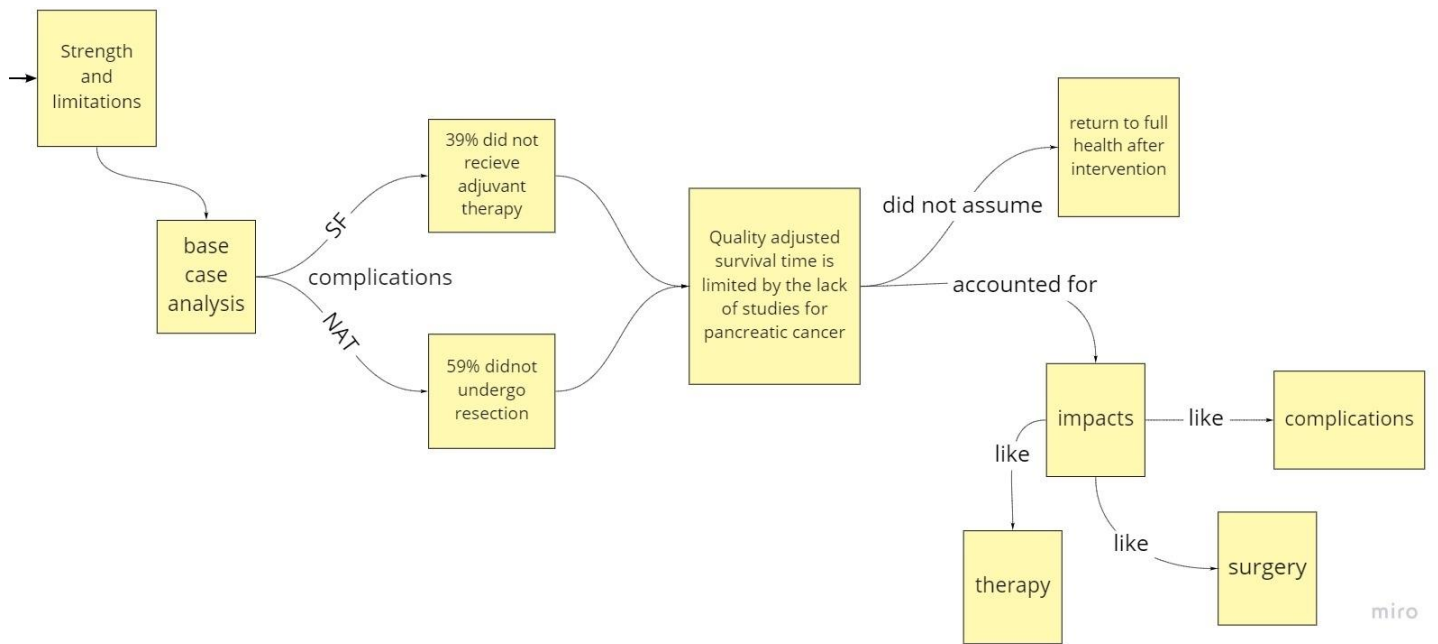
RCT - Randomized  
Control Trial  
NAT - Neoadjuvant Therapy  
SF - Surgery first  
QALMs - Quality-Adjusted Life Month

miro

miro







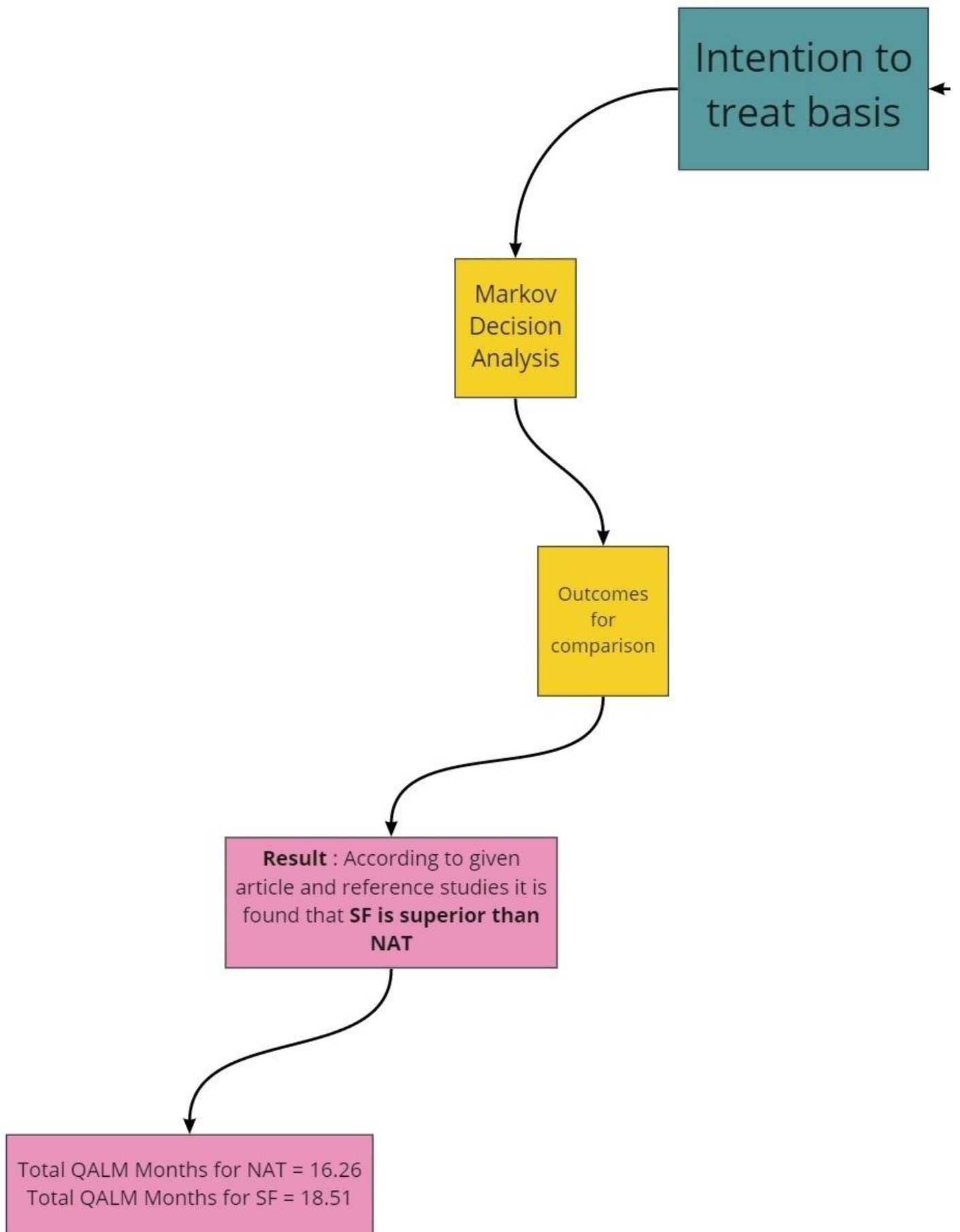
Intention to  
treat basis

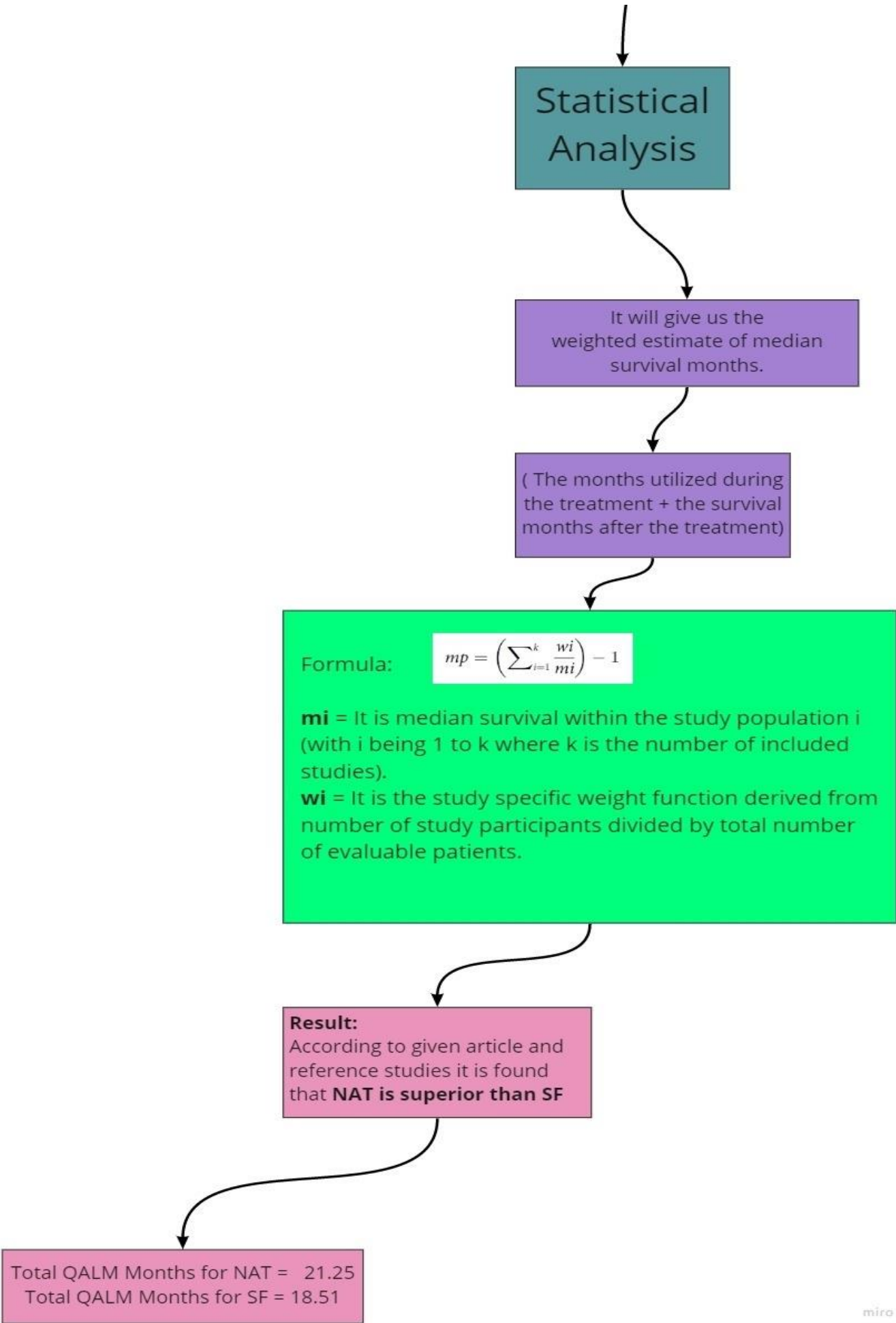
Markov  
Decision  
Analysis

Outcomes  
for  
comparison

**Result** : According to given  
article and reference studies it is  
found that **SF is superior than  
NAT**

Total QALM Months for NAT = 16.26  
Total QALM Months for SF = 18.51





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graph TD; A[ ] --> B[Statistical Analysis]; B --> C[It will give us the weighted estimate of median survival months.]; C --> D["( The months utilized during the treatment + the survival months after the treatment)"]; D --> E["Formula: 
$$mp = \left( \sum_{i=1}^k \frac{wi}{mi} \right) - 1$$
  
mi = It is median survival within the study population i (with i being 1 to k where k is the number of included studies).  
wi = It is the study specific weight function derived from number of study participants divided by total number of evaluable patients.]; E --> F["Result:  
According to given article and reference studies it is found that NAT is superior than SF"]; F --> G["Total QALM Months for NAT = 21.25  
Total QALM Months for SF = 18.51"]; style A fill:none,stroke:none; style B fill:#4682b4,color:#fff; style C fill:#9370db; style D fill:#9370db; style E fill:#00ff00; style F fill:#ffb6c1; style G fill:#ffb6c1;
```

## Statistical Analysis

It will give us the weighted estimate of median survival months.

( The months utilized during the treatment + the survival months after the treatment)

Formula:

$$mp = \left( \sum_{i=1}^k \frac{wi}{mi} \right) - 1$$

**mi** = It is median survival within the study population i (with i being 1 to k where k is the number of included studies).

**wi** = It is the study specific weight function derived from number of study participants divided by total number of evaluable patients.

### Result:

According to given article and reference studies it is found that **NAT is superior than SF**

Total QALM Months for NAT = 21.25  
Total QALM Months for SF = 18.51

