

# TREATMENT PATTERN WITH TRANSFUSION-DEPENDENT THALASSEMIA (TDT)

The aim of the project is to create a budget impact model and to understand the clinical treatment pattern and direct medical costs associated with Transfusion dependent Thalassemia patients.

## Objectives:



### Clinical treatment pattern

Newer therapies such as gene therapy and Luspatercept can decrease the transfusion



### Resource Utilization

Patients with TD  $\beta$ -thalassemia had significantly higher healthcare resource utilization, medication



### Medical Costs

The total treatment expenses of a patient at an average of INR 74,948. 38.8% of the family income was spent on the treatment of a thalassemia patient annually



### Creating a Budget Impact Model

To gather relevant inputs regarding treatment patterns and health resource utilization using a targeted survey for expert opinion/feedback

## Key Findings:

### Treatment Pattern

The most commonly prescribed dose of DFP in iron chelation therapy for patients with different transfusion burden

- Low Transfusion Burden (LTB) - 46.1mg/kg
- Intermediate Transfusion Burden (ITB) - 65.6mg/kg
- High Transfusion Burden (HTB) - 66.7 mg/kg
- Transfusion Independence (TI)- 50 mg/kg

Patients with HTB visited 15times for RBC transfusion over a period of 24 weeks

### Treatment Cost

Average cost per 24 weeks for DFO (deferoxamine) administration was found to be INR 17,500

Average cost per 24 weeks for the following Iron chelation therapy categories

- Low Transfusion Burden (LTB) - INR 17,500
- Intermediate Transfusion Burden (ITB) - INR 33,750
- High Transfusion Burden (HTB) - INR 55,000

### Pathological Test

Commonly recommended in TDT patients

- Neutrophil Count
- Serum Creatinine
- Liver Function
- Ferritin test

### Adverse Events

During treatment with BSC (Best Supportive Care)

- Increase in liver iron concentration
- Bone pain, back pain and headache

During treatment with ICTs (Iron Chelation Therapies)

- Agranulocytosis
- Hepatitis