



# Assessing Relation between Prescription Analysis & Medication Adherence using General Medication Adherence Scale (GMAS) in Patients Visiting OPD of a Tertiary Care hospital



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# Introduction

- About 50% of chronically ill patients do not take medicines as prescribed – WHO report
- Cost of medication non-adherence :
  - estimated as \$289 billion/yr
  - highly ignored area in assessing medication non adherence
  - incorporated in GMAS
- GMAS
  - self report based scale for measuring medication adherence
  - 3 components -
    - Patient Behaviour
    - Comorbidity with pill burden
    - Cost



# Aim & Objectives

## **Aim**

- To assess Prevalence of medication non-adherence and its relation with Prescription quality

## **Objectives**

- To conduct prescription analysis using validated checklist
- To study medication adherence and causes of Non-adherence using GMAS
- To study correlation between medication adherence and prescription analysis



# Materials and Methods

- Study Design - Cross-sectional
- Sample Size - 29; although 150 samples were studied
- Study Place - Tertiary Care Hospital at Pune
- Study Population - OPD Patients
- Exclusion criteria - Paediatric patients and patients unwilling to participate in the study



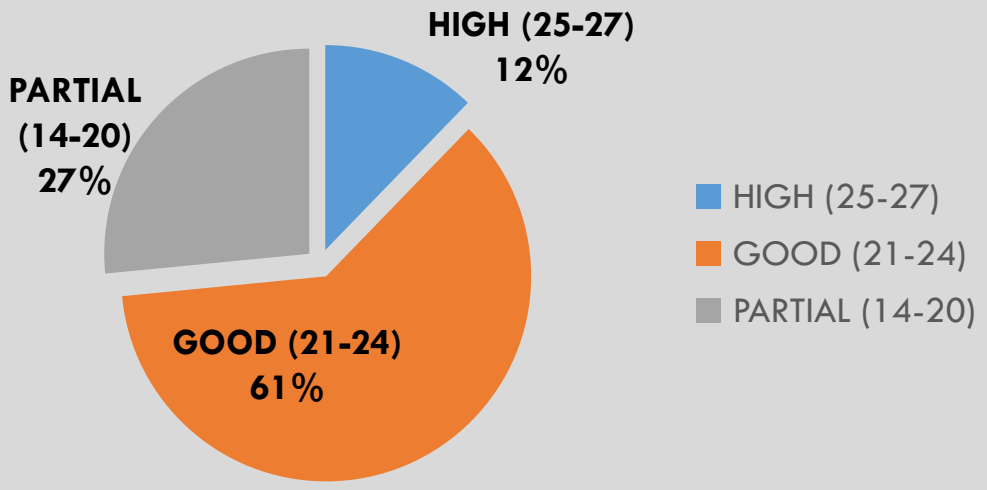
\*Reference: WHO-Guide to Good Prescribing –WHO/DAP/94.11 & MoHFW- Prescription Audit guidelines



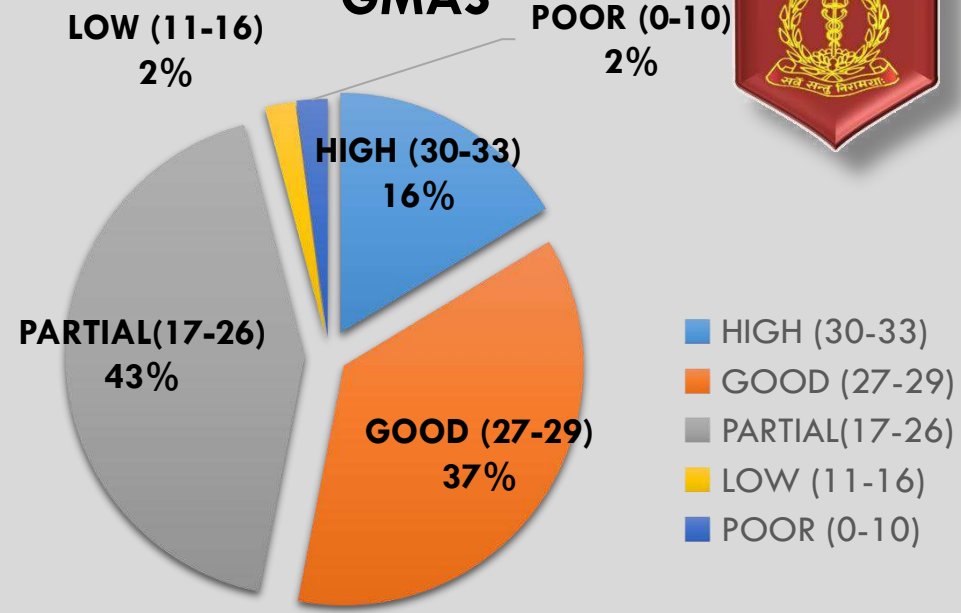
# Results



# Prescription Score



# GMAS



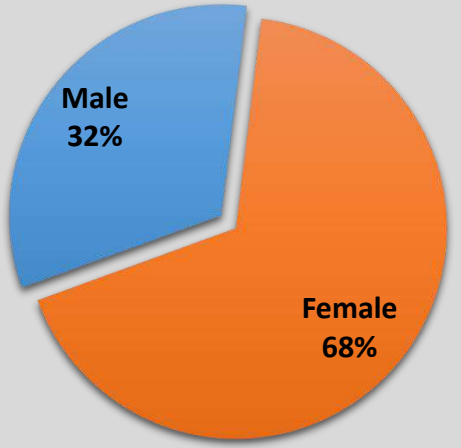
All Prescriptions lacked	Capital Writing & Allergy status of patient
Adm related prescription error	Nil
Therapeutic duplication	Nil
Proprietary/trade names	42.90%
Follow-up not mentioned	54.2%
Poly-pharmacy	20.40%
Drug Interaction	12.2%
Medicines Prescribed NA in hospital	24.5%

Cost Related Non-adherence	16.3%
Pill Burden Associated Non-adherence	6.1%
Patient Behavior Related Non-adherence	4.1%

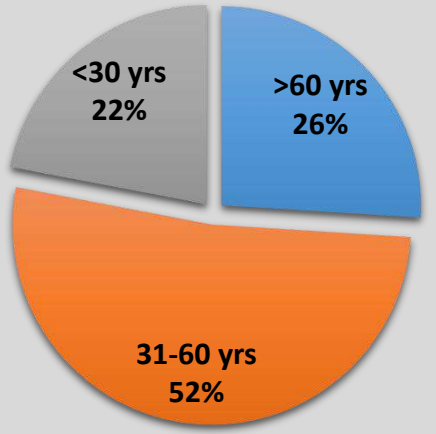


# Results: Demographics

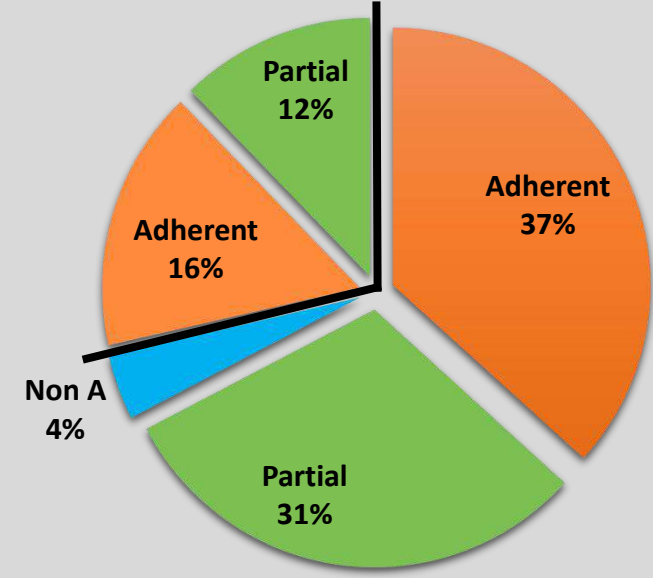
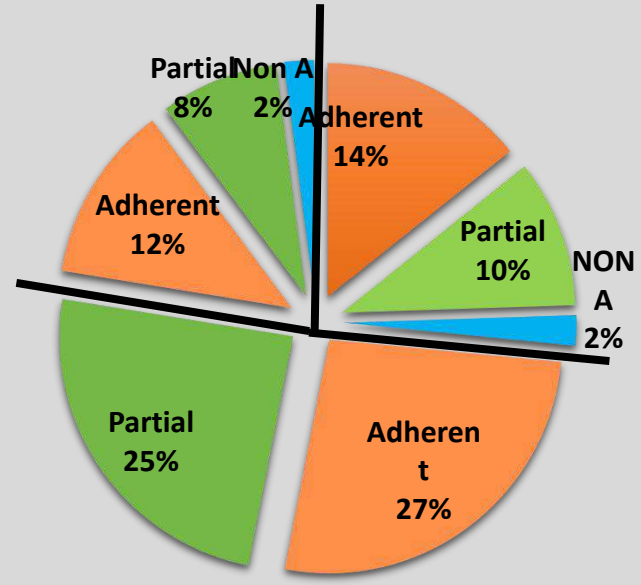
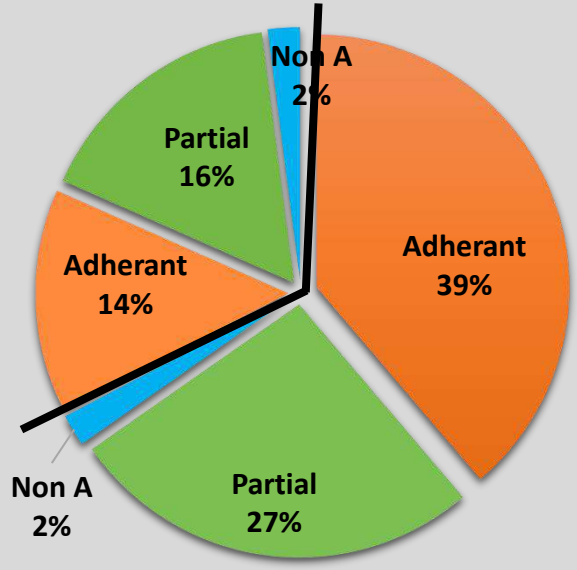
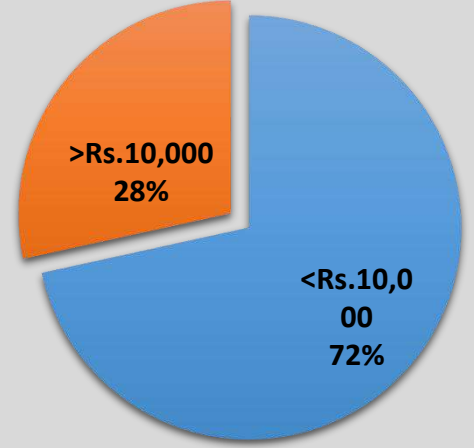
### Gender



### Age



### Monthly Income

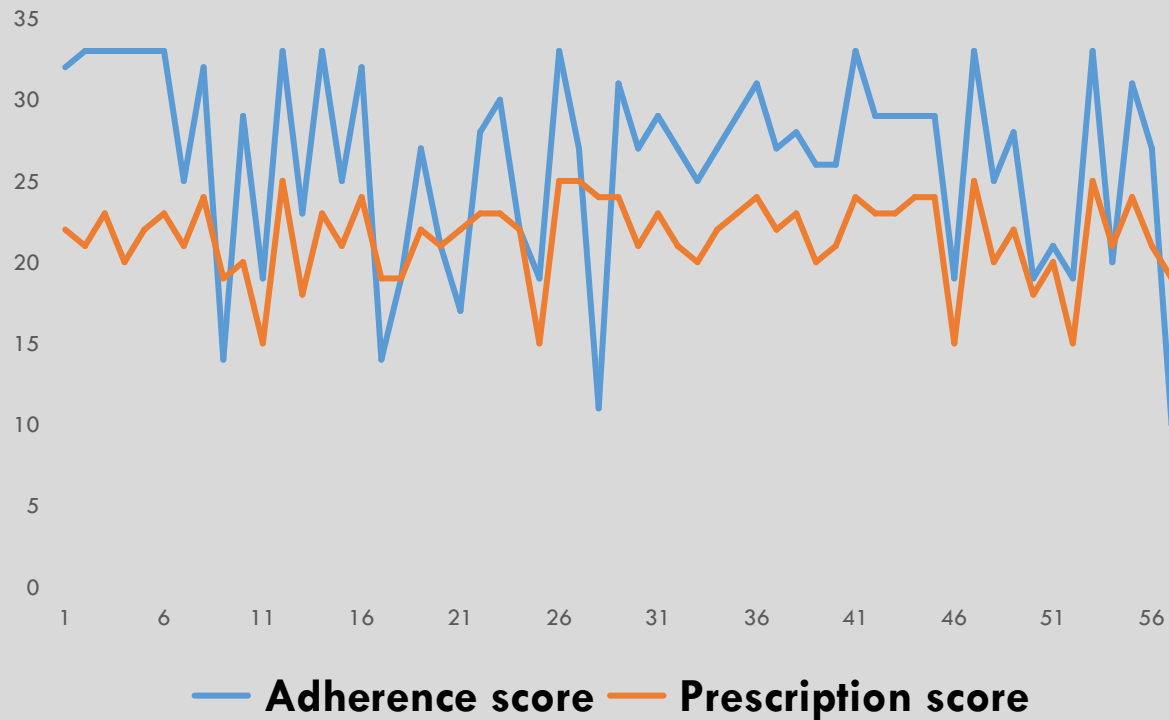


■ Adherent     
 ■ Partial Adherence     
 ■ Non Adherent

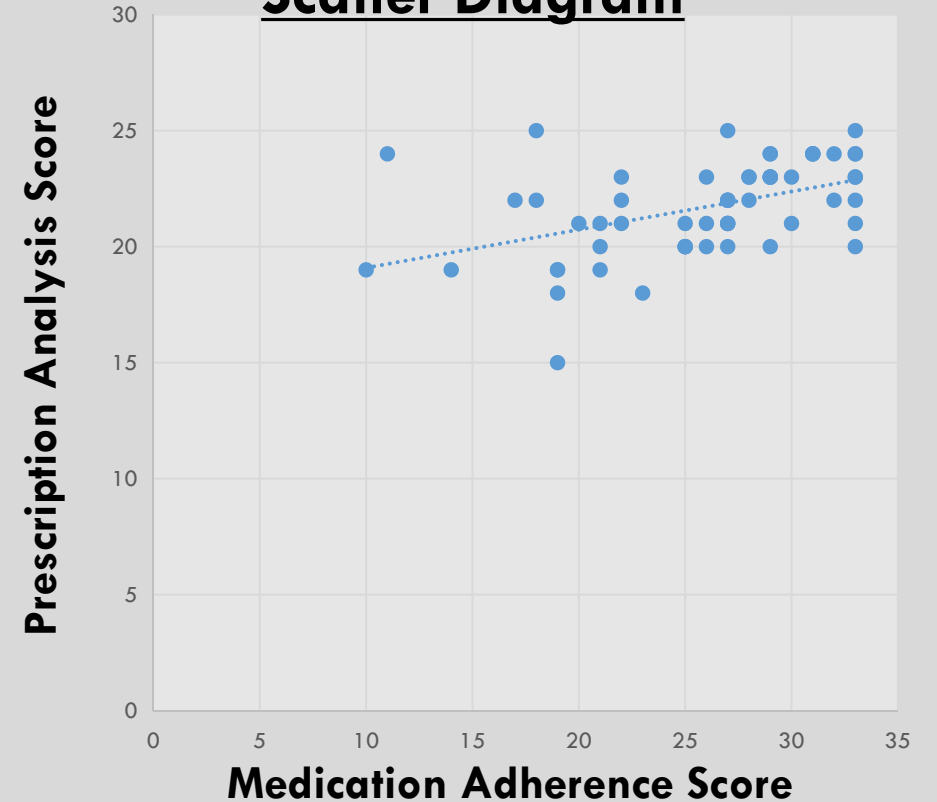


Moderately positive correlation between adherence score and prescription audit score ( $r=0.63$ ; C.I (95%)=0.53-0.71)  
P-value=  $<0.0001$

### Comparative Analysis



### Scatter Diagram







# Take Home Message

- Moderately positive correlation between Medication adherence & Prescription quality
- Tool developed for grading of Prescription Quality can be utilized to compare it with GMAS in other studies too
- Can assess causes of medication non-adherence and take measures to minimize the causes that are under our control like cost related non-adherence, pill burden associated non-adherence



# Thank You