# MINIMIZATION OF DRUG RELATED PROBLEMS IN ELDERLY PATIENTS: A NEW INTERVENTIONAL PHARMACEUTICAL CARE PLAN

#### Thesis

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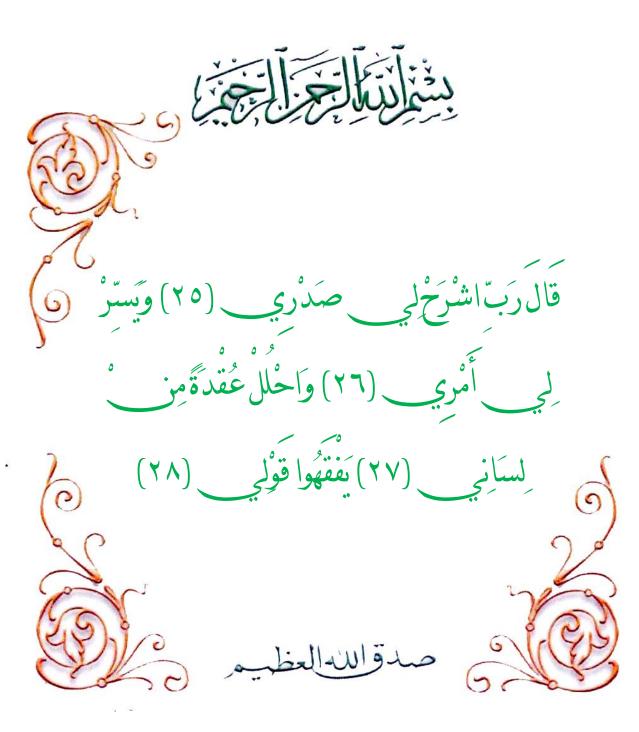
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#### **List of Abbreviation**

ADME Absorption, distribution, metabolism and excretion

ACE Angiotensin converting enzyme

ADEs adverse drug events

ADR adverse drug reaction

CHF Congestive heart failure

CLD Chronic liver disease

COPD chronic obstructive pulmonary disease

CYP3a4 isoenzymes Cytochrome P450 3A4 isoenzymes

DDIs drug-drug interactions

DESI Drug Efficacy Study Implementation

DM Diabetes mellitus

DMARD Disease-modifying antirheumatic drug

FDA Food and Drug Adminstration

GERD gastro-esophageal reflux disease

HMG COA reductase 3-hydroxy-3-methyl-glutaryl-CoA reductase

inhibitors

HTN Hypertension

IADLs instrumental activities of daily living

IDU Inappropriate drug use

ISHD Ischemic heart disease

MAI Medication Appropriateness Index

NORGEP Norwegian General Practice

NSAID Non-steroidal anti-inflammatory drug

NYHA New York Heart Association

PIMs potentially inappropriate medicines

#### List of Abbreviations

PIP potentially inappropriate prescribing

PPOs potential prescribing omissions

RF Renal failure

SSRI's Selective serotonin re-uptake inhibitors

START screening tool to alert to right treatment

STOPP screening tool of older person's prescriptions

TCA's Tricyclic antidepressants

#### **Abstract**

#### Introduction

Older patients are at high risk for experiencing inappropriate drug use, because they are more liable to multiple diseases and more expected to take several medications. This may have impact on their physiological functions, cognition, increase the risk for drug interactions and medication errors. Inappropriate medication use in elderly patients can be evaluated by using either explicit (criterion-based) or implicit (judgment-based) criteria. "Beers criteria, STOPP (screening tool of older person's prescriptions) & START (screening tool to alert to right treatment) and medication appropriateness index (MAI)" are widely used to detect and modify inappropriate medication in the elderly. Clinical pharmacists offer safe medication use by providing complete supervision to patients and medical staff. However, geriatric medications still a bit vague in pharmaceutical care.

#### Aim of the work

The aim of the current study is to detect, evaluate and minimize drug related problems in elderly patients admitted to Department of Geriatrics, Ain Shams University.

#### **Patients and methods**

The study was carried out in Department of Geriatrics, Ain Shams University on 300 elderly patients who were divided into two groups. Control group contained 150 patients who received standard care without pharmaceutical care in the health care team. Patients in the control group were examined for the