Course Title/Code: **Pharmacological Interventions for Psychosis (MMPH6201)**

Department: Psychiatry

Objective: Optimal management of patients with psychosis requires skillful integration of pharmacological and psychological treatments. An in-depth understanding of medication is fundamental to the day-to-day work with psychosis patients. In this module, participants will gain insight into the pharmacological treatment options for psychosis. Practical knowledge on pharmacokinetics and pharmacodynamics (mechanism of drug action) will be introduced. Building upon this background knowledge, the efficacy of conventional and atypical antipsychotic medications will then be discussed. The use of antipsychotics in different phases of the illness will be highlighted. Participants will learn to assess and monitor medication side effects, both clinically and using standard research instruments. The module will also cover the patient's perspective on medication treatment and adherence behaviour.

Content:

Antipsychotic medications
- History of development of antipsychotic medication
- Classification
- Typical and atypical antipsychotic medication

Pharmacokinetics of antipsychotics
Basics of Pharmacokinetics

Pharmacodynamics of antipsychotics
- Basics of neurochemistry: hypersensitivity
- Revision of neurotransmitter system implicated in psychosis
- Other neurotransmitter system

Side effects of antipsychotics: understanding, assessment and management
- Understanding of side effects of antipsychotic
- medications on the basis of pharmacokinetics and pharmacodynamics
- Assessment of side effects: clinical assessment and introduction of rating instruments
- Management of side effects

Clinical use of antipsychotic medication: evidence-based approach
- Concepts of efficacy
- Introduction to evidence of different clinical trials
- Process of drug development: the modern scene

Other pharmacological interventions in psychosis
- Use of mood stabilizer in psychosis

- Use of antidepressants

Maintenance therapy and adherence behaviour in psychosis

- Factors associate with medication adherence
- Local scene
- Introduction of management of poor medication adherence

Learning Outcomes:

Knowledge

- In-depth understanding of pharmacokinetic, pharmacodynamic and clinic evidence of pharmacological treatment in psychosis.
  - Understand factors which affects the amount of drug with can be active in the body
  - Understand factors which affect the absorption, distribution, metabolism, breakdown, and excretion of a drug. Drug-drug interaction.
  - Understand the effects of antipsychotics on neurotransmission and other processes in the brain.
  - Appreciate the main mechanisms of actions major antipsychotic drugs
- Understanding of the basis of different side effects of the medications.
  - Appreciate the involvement of different neurotransmitter systems in mediating side effects
  - Appreciate how interference of different neurotransmitter systems might result in side effects
  - Understanding the causes of poor drug compliance in general and in psychosis.
  - Appreciate factors associated poor antipsychotic compliance in early psychosis and in chronic psychosis.
  - Understand the rationale for drug choice in minimizing and handling of side effects
  - Appreciate different ways to access medication compliance

Skills

- Able to appreciate the effectiveness studies of different treatment modalities.
  - Able to use evidence-base approach to appreciate the effectiveness of different treatment modalities including both medication and psychosocial treatments
- Familiar with skills in assessing and managing side effects of medications.

- Ability to evaluate different types of medication side effects including extra-pyramidal side effects, metabolic side effects and cholinergic side effects
- Ability to use different assessment tools for side effects
- Aware different ways of handling the side effects

Prerequisite: None

Duration: 1 semester; 2.5 hours/week; 24 contact hours

Continuous assessment/examination ratio: Continuous assessments 40%
Written examinations 60%

Examination method and duration: Written examination / 1.5 hours