Introduction

• The aim of this unit
  – To impart a basic understanding of the concept of pharmacoeconomics
  – To develop the basic skills required to apply this understanding in a practical context

• At the end of the unit
  – You will have a grasp of the basic principles of pharmacoeconomics (PE) and be in a position to evaluate and criticise literature on the subject
  – You will realise that PE is applied to everyday situations, including one of those most relevant to us, pharmacy administration
  – You will be in a position to apply your newly acquired knowledge to practical use
Introduction

• I expect
  – You to take an open-minded approach and research practical examples and utilise them both in lectures and also in written evaluation

• I will
  – Make the subject as interesting as possible and try my best to connect the theoretical with real-world applications
Basic concepts and definitions
Pharmacoeconomics

• Is a multidisciplinary concept

• Encompasses pharmacy and economics

• By definition is the study of the financial aspects of pharmaceutical care
Pharmaceutical Care

• The responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life

Economics

• The study of the utilisation and distribution of scarce resources which could have a variety of potential applications, both in a present and also in a future context

• By nature, no resource is infinite and thus a system for its allocation must exist, or be devised
Pharmacoconomics

- Is thus the science of applying economic theory to pharmaceutical healthcare ends
- Scare pharmaceutical resources are put to the best possible use
- And implemented to achieve the best cost to effect benefits
- A more technical definition is.....
Definition of Pharmacoeconomics (PE)

- Description and analysis of the costs and consequences of pharmaceutical products and services and their impact on individuals, health care systems and society.
PE as a science

• It is a new discipline
• Only started being mentioned in literature in the 1980’s, with the first PE journal published in 1979
• Becoming even more relevant as financial realities become more important
• In pharmacy one must achieve a balance between needs and resources
PE as a dispenser of pharmaceutical ‘justice’
PE and the practice of pharmacy

• PE allows decisions to be taken on who, how and when to treat
• Hard choices must be made when practising pharmacy, as there are never enough resources to treat all potential patients
• PE is often ignored by administrators due to time and or budgetary constraints, resulting in even more misuse of valuable resources
Social Context

- PE enables pharmaceutical care to be put into real-life context
- Innovation in pharmacy is futile without the possibility of evaluating its widespread, affordable and accessible application
- Can be on a macro- or micro-economic scale
The increase in PE studies over time

![Graph showing the increase in PE studies from 1965 to 1995.](image)
PE, clinical pharmacy and pharmaceutical care
Conflicting interests in healthcare administration

• There is an overlap of functions

• Various interests vie for primacy

• Taking an objective view while prioritising the patient’s well-being
Interlinked Subsets of Clinical Decision-Making

clinical

economic

humanistic
## Outcomes to be considered

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical</td>
<td>Eradication of disease and physical survival</td>
</tr>
<tr>
<td>Humanistic</td>
<td>Quality of life, including physical, emotional and social well-being</td>
</tr>
<tr>
<td>Economic</td>
<td>Cost of treatment options, alternatives, and the global effect on society</td>
</tr>
</tbody>
</table>
Clinical implications of PE

- Time and money can only be spent once - choice is inevitable
- Pharmacoeconomics and outcomes research strengthens the evaluation process
- Enables the delivery of better value in patient care
- Increases access to pharmaceutical care
Cyclical relationship between Outcomes, Pharmacoeconomics and Pharmaceutical Care

PE STUDIES

OUTCOMES RESEARCH

PHARMACEUTICAL CARE
Aims & Uses

• The primary aim is to enable providers to supply a high quality pharmaceutical service at the lowest possible cost

• Outcomes research helps to answer some of the tricky questions posed earlier

• By setting a measure of cost-efficacy to a particular health treatment
Aims & Uses

Main applications of pharmacoeconomic studies

Drug Therapy Evaluations

Justify the cost of pharmaceutical care
Application

Outcomes research-
A manner in which to evaluate the economic implications of research in general

Cost-
A quantification of the value of resources consumed by a program or drug therapy of interest

Consequences-
A measure of the effects, outputs or outcomes of program or drug therapy of interest
Applied Pharmacoeconomics

- definitions
- theory
- principles
- methods

Application
Perspective

- Patient - the actual recipient of treatment
- Prescriber - the professional choosing the treatment
- Provider - the institution supplying it
- Payer - the one forking out the money
- Societal - the global effect of the cost on others
Bibliography and Acknowledgements

- Deshpande PR, PharmD, Dept. of Pharmacy Practice, Manipal University, Manipal, India. Pharmacoeconomics, Microsoft Powerpoint Presentation
- International Society for Pharmacoeconomics and Outcomes Research (ISPOR), Introduction to Pharmacoeconomics, ISPOR Distance Learning Program
- Rascati, K. *Essentials of Pharmacoeconomics; Philadelphia: Lippincott Williams & Wilkins; 2008*
- Satyanarayana K, St.Peter's Institute of Pharmaceutical Sciences, Pharmacoeconomics, Microsoft Powerpoint Presentation
- Shull S PharmD, MBA. Basics of Pharmacoeconomics and Outcomes Research: Application to Patient Care, Microsoft Powerpoint Presentation