Letter to Editor

Pharmacoeconomical Concept in the Book of Rhazes, 10th Century AD

Dear Editor,

In the recent years, innovations in prescription drugs have improved health but for a particular population. There are many patients who could not afford the high cost of many of these therapies.^[1] With the development of a variety of treatment options, we can see strategies such as Affordable Care Act or Obamacare in developed countries to help more patients have access to appropriate medication.^[2] Pharmacoeconomical studies are basically scientific disciplines which are involved in comparing the value of one pharmaceutical drug or drug therapy to another.^[3] This concept although looks modern, it can be seen in the books of Persian physicians of the middle ages as well. "Medicine for the poor" was a class of books in the medical literature of this era. Many physicians from this time compiled lists of popular remedies for the patients who could not afford a visit to the physician.^[4] Going through the old literature of Persian medicine in this era, we can see a book by Rhazes (865-923), which was written for the patients who could not afford consulting or referring to a physician for their medical problems. Rhazes is best known in the world for his book al-Hawi (Liber continents),^[5] but this scholar has a book in the genre of "Medicine for the poor" which is named "Man la Yahduruhu al-Tabib (Book for Someone Who Does Not Have Access to a Physician)."[6] Figure 1 shows the beginning and ending of a copy of this manuscript available at Dr. Noorani Vesal museum of medical history, Shiraz University of Medical Sciences. In this book, Rhazes gathered not only simple but also cheap treatments for many diseases. The language of the book like many other scientific literatures of that era is Arabic as lingua Franca (the common language used by different peoples with different languages as bridge language). It was the scientific language of the entire Islamic empire. This book contains 37 chapters and 78 pages of available, effective, and not costly treatments. The first six chapters

of the book are written on treatments of central nervous system problems. The next five chapters are allocated to the organs of the head. These chapters discussed about treatments of diseases of the eves, ears, nose, mouth/teeth, and tonsil/larynx. Chapter 12 was written on simple treatments for catarrh. Rhazes wrote the next three chapters mainly on the problems of the chest area. These chapters are on treatment of lung diseases, tuberculosis and cough, and breast problems. Then, he allocated two chapters to stomach and indigestion remedies. Chapter 18 is on heart problems. In chapter 19, he recommended simple treatments for obesity and thinness. Chapters 20 and 21 were written on remedies of liver and spleen conditions. Chapter 22 is about treatment of edema. Chapters 23 to 25 were written on intestine problems, hemorrhoids, and colic. Chapter 27 was written on the common problems of urinary system. Chapters 28-30 were written on sex organs and their common treatments in men and women. Chapter 31 is about joints and gout. In chapters 32 and 33, Rhazes wrote remedies for varicose veins and back pain. In chapter 34, he wrote about skin care and beauty. Chapters 35 and 36 are about different treatments for poisonings. The last chapter is about treatment of fever.

Studying this book can help us understand the high standard of health care in the Islamic civilizations in the middle ages. Rhazes found it necessary to write a book for the public who could not refer to a physician and he also included a skin care and beauty chapter in the book. This book also provides us with the simple remedies for further studies which could help us understand the basic concepts of traditional medicine. From pharmaceutical point of view, the formulations of this book are simple and easy to be produced if their efficacies are studied.

Financial support and sponsorship

Nil.

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Figure 1: The beginning (left) and ending (right) pages of a copy of "Man la Yahduruhu al-Tabib" manuscript available in Dr. Noorani Vesal museum of medical history, Shiraz University of Medical Sciences

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Conflicts of interest

There are no conflicts of interest.

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Received: 03 May 17 Accepted: 23 Jun 17 Published: 12 Jun 19

References

- Walton SM, Basu A, Mullahy J, Hong S, Schumock GT. Measuring the value of pharmaceuticals in the US health system. Pharmacoeconomics 2017;35:1-4.
- Baker AM, Hunt LM. Counterproductive consequences of a conservative ideology: Medicaid expansion and personal responsibility requirements. Am J Public Health 2016;106:1181-7.

- Mueller C, Schur C, O'Connell J. Prescription drug spending: The impact of age and chronic disease status. Am J Public Health 1997;87:1626-9.
- 4. Bos G. Ibn al-Jazzar on medicine for the poor and destitute. J Am Orient Soc 1998;118:365-75.
- Zarshenas MM, Mehdizadeh A, Zargaran A, Mohagheghzadeh A. Rhazes (865–925 AD). J Neurol 2012;259:1001-2.
- Nikaein F, Zargaran A, Mehdizadeh A. Rhazes' concepts and manuscripts on nutrition in treatment and health care. Anc Sci Life 2012;31:160-3.

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Access this article online			
Quick Response Code:	Website: www.ijpvmjournal.net/www.ijpm.ir DOI: 10.4103/ijpvm.IJPVM_203_17		

How to cite this article: Hosseinkhani A, Montaseri H, Zarshenas MM, Zargaran A. Pharmacoeconomical concept in the book of Rhazes, 10th century AD. Int J Prev Med 2019;10:109.

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