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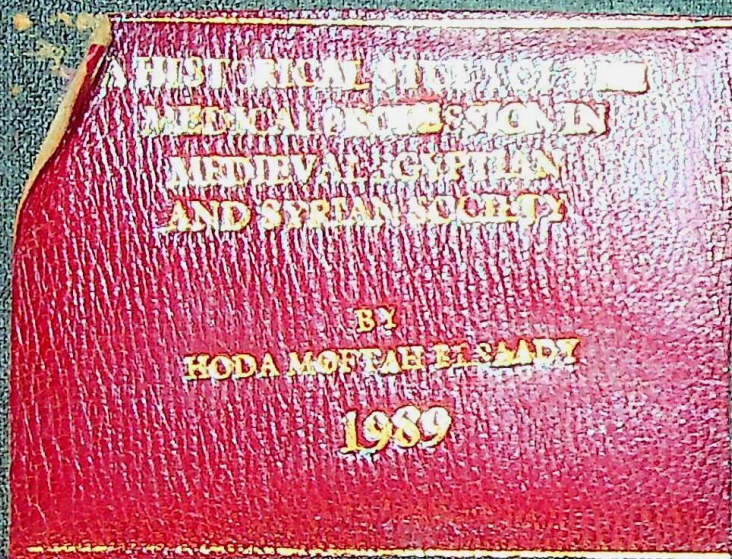
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A HISTORICAL STUDY OF THE
MEDICAL PROFESSION IN
MEDIEVAL EGYPTIAN
AND SYRIAN SOCIETY

BY
HODA MOFTAH EL SAADY

1989

الجامعة الأمريكية بالقاهرة
The American University in Cairo

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Σ

"A Historical Study of the Medical Profession
in Medieval Egyptian and Syrian Society: The Use of
ibn Abī Uṣaybiya's Medical Biographical Dictionary
as a Historical Source".

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A Thesis Submitted to
The Department of Arabic Studies
in Partial Fulfillment of the Requirements of
The Degree of Masters of Arts

By:

Hoda Moftah El Saady

December, 1989


THIS THESIS FOR THE MASTER OF ARTS DEGREE

BY


Huda Muftah al-Sa'di

HAS BEEN APPROVED

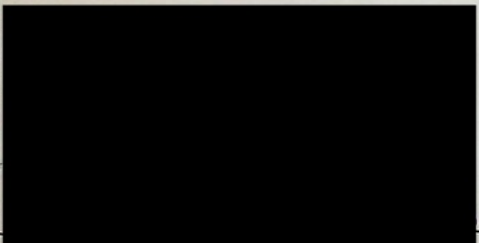
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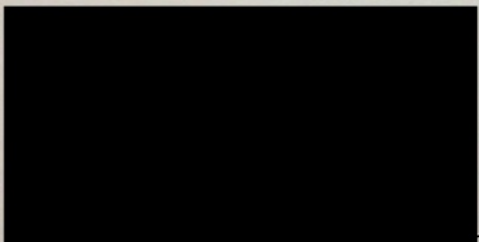
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I am deeply grateful to my supervisor Dr. Huda Latifi for her valuable advice, generosity, patience, encouragement and endless support that never ceased throughout writing this research. It is a pleasure and an honor to work under her supervision.

I would also like to thank Dr. M. Cuno and Dr. Elizabeth Sartain, their careful reading of my thesis, their comments and advices To My Parents help to me.

Special thanks go to my family. I owe a lot to my dear parents not only for the support and help they gave me while writing this thesis, but for their continuous encouragement throughout all my years of education. My three sisters; Horreys, Mona, and Reem deserve my thanks. I would have never been able to finish my work were it not for their moral support and encouragement. Last but not least, I would like to thank my husband Ahmad al Wida'i who besides helping me in typing the paper, has provided me with whatever assistance I needed at all times.

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I am deeply grateful to my supervisor Dr. Huda Lutfi for her valuable advice, generosity, patience, encouragement and endless support that never ceased throughout writing this research. It is a pleasure and an honour to work under her supervision.

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English Transliteration System

The system of transliteration adopted in this paper is that used by the
International Journal of Middle Eastern Studies.

ʾ	ʿ	ʾ	ʿ	ʾ	ʿ
ء	ʿ	ذ	-	ل	l
ب	b	س	s	م	m
ب	-	ش	sh	ن	n
ت	t	ص	ṣ	ه	h
ث	th	ض	ḍ	و	w
ج	j	ط	ṭ	ي	y
ج	-	ظ	ẓ	ة	a
ح	h	ع	-	ال	-
خ	kh	غ	gh		
د	d	ف	f		
ذ	dh	ق	q		
ر	r	ك	k		
ز	z	ك	-		

Long ʾ or ʿ ā
 و ū
 ي i
 Doubled ʿ iyy (final form i)
 و uww (final form u), etc

Diphthongs ʾ au or aw
 ʿ ai or ay
 Short ʾ a
 ʿ u
 ʾ i

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Biographical dictionaries are considered to be one of the major sources for the study of Islamic society and culture. While the historical genre of biography began with the recording of the lives of major religious figures and transmitters of Ḥadīth in early Islamic period, biographical dictionaries in the later medieval period came to be more specialized and classified according to the various professions existing in Islamic society. For example, we find specialized works on scholars of fiqh, classified according to their legal schools; on Ṣūfis, scientists, physicians, and poets. In addition to these, we can also find medieval biographical dictionaries of a more comprehensive nature dealing with the religious, political and merchant elites living during a specific historical period. Out of all these professional categories, it was the religious one which received the greatest attention from the medieval Muslim biographer. Because of the detailed coverage of the scholars of the fiqh and ḥadīth, as a religious group in medieval Muslim society, many modern researchers were tempted to study their religious and

political contribution making use of such an abundant biographical material.⁽¹⁾ In contrast, and despite of the significant medical services that physicians performed in preventing illness in the healthy and restoring health to the diseased, they did not receive enough attention from both Muslim medieval biographer and the modern researcher. No modern study that I know of has analyzed the existing biographical dictionaries of physicians in order to evaluate their role in Muslim medieval society. I hope to compensate for an inadequacy to the best of my ability through an analysis of 'ibn 'Abī Uṣaybi'a's major medical biographical dictionary, *Uyūn al-'Anbā' fī Ṭabaqāt 'al-Āṭibbā'*. The purpose of this choice of historical source is to evaluate the role and contribution of physicians living in Egypt and Syria under the Fatimid-Ayyubid rule.

An assessment of the historiical genre of biography will form the subject matter of Chapter I. The first part of the chapter will deal with biographical dictionaries in general, their importance, how they grew as a historical genre and their general features. From these, I will proceed to focus on medical biographical dictionaries only.

When did the writing of such dictionaries begin and who were the first to contribute to the writing of medical biography? The most important medical biographical dictionaries written by earlier medieval biographers will be examined in order to demonstrate how medical biography developed. The chapter also includes a discussion of the identity and professional background of the biographers themselves to determine their interest in recording the biographies of physicians. Here, special emphasis will be placed on 'ibn 'Abī Uṣaybi'a and his biographical dictionary, *Uyūn 'al-'Anbā' fī Ṭabaqāt 'al-Āṭibbā'*.

In Chapter II, I provide a general historical survey of the medieval medical practice in Islamic society. First, a short historical account of medieval Islamic medicine is provided, showing the close links between the practice of medicine in medieval Muslim society and the Greek medical heritage. Second, the chapter provides a general description of the medical profession in medieval Islamic society. The following themes then are discussed:

1. The different methods of teaching and education that prepared medical students for entering the medical profession.

2. The criteria for entering the medical profession.
3. The social economic position of physicians in medieval Muslim society.
4. Ethics of the physician and the relationship between him and his patients.
5. Places and institutions where medicine was practiced, here the role of hospitals is examined in detail.
6. The pharmaceutical practices: The role of the pharmacists and the interrelated practitioners who supported and supplemented the medical profession is taken into consideration.

Both chapters Three and Four focus on the use of 'ibn 'Abī Uṣaybi-a's biographical dictionary, as a source for writing the history of physicians in the Fatimid and Ayyubid period. They analyze information included in the last two chapters in 'ibn 'Abī Uṣaybi-a's dictionary, those dealing specifically with physicians in Egypt and Syria. In spite of the fact that in analyzing 'ibn 'Abī Uṣaybi-a's dictionary, I was limited by data from a tiny sample of physicians, and presented with information of unsystematic nature, I was not only interested in examining the medical, scientific, and professional practices of physicians, but also in examining

the socio-economic and political status of physicians in their social context. In Chapter III, I intend to make use of 'ibn 'Abī Usaybi-a's dictionary to evaluate the religious, social, political and economic status of physicians during the Fatimid and Ayyubid periods as follows:

A. Religious and Social Status of Physicians:

- Religion.
- Place of Origin
- Family Background
- Dates of Birth and Death.

B. Political and Economic Status of Physicians:

- Relations of physicians to power structure
- Wealth acquired by physicians.

Chapter IV is an analysis of 'ibn 'Abī Uṣaybi-a's data on the practice and contribution of the medical profession in the Fatimid and Ayyubid periods. The chapter provides the reader with a clear and precise picture of the following:

- A. Education and training background of physicians; showing the effect of Greek legacies on the medical education of physicians and whether the medical students were exclusively devoted to the study of medicine or did they study other sciences as well.

Furthermore, this section also discusses the different methods of medical education of that society.

B. The practice of Medicine, where and how medicine was practiced in this society, are two important questions that are dealt with in detail in this section.

C. The Literary Production of Physicians: This section analyzes all the medical and non-medical literature produced by the physicians under consideration.

In general, the analysis carried out in both chapter three and four are statistical analysis based on the samples provided by 'ibn 'Abī Uṣaybi'a and therefore all conclusions reached in these two chapters are formed on the bases of such samples.

Finally comes the conclusion, which is a general evaluation of 'ibn 'Abī Uṣaybi'a's book. Two appendices are attached to the paper, one is a list of all the Egyptian and Syrian physicians under consideration. The second is a list of all the works produced by such physicians. It should be noted that the names of all these books are written in Arabic because of the difficulty of translating them into English or writing them in transliteration. I hope that

this second appendix will be an aid to the more specialized researchers interested in the literary production of physicians. On the whole, this paper is written with the hope of stimulating interest in a subject that received little attention from the modern researcher.

CHAPTER ONE

AN ASSESSMENT OF THE HISTORICAL GENRE OF BIOGRAPHY IN THE ISLAMIC INTELLECTUAL TRADITION

Biographical dictionaries have early occupied a dominant position in the historical literature produced by Muslim scholars. Modern historians attribute several reasons to the emergence of this Historical genre. The most important, being the early and intense religious interest in the life of the prophet and his companions. The life of the prophet, "constituted the quarry from which the materials for the construction of the mighty edifice of Islam were derived".⁽¹⁾ Details of the life of Muḥammad and his traditions (ḥadīths) came to be transmitted by a growing number of specialized Muslim scholars. And as the ḥadīths and Ḥadīth transmitters grew in number, it was extremely important to prove the probity of these individuals. Accepting what they transmitted depended on the information about their own lives and characters, and their personal merits and demerits established whether their contributions

were worthwhile or not. Interest in studying the lives of individual Hadīth transmitters, muḥaddithūn, started to emerge since the early second century Hijrī, eventually leading to the development of the important biographical literature.⁽²⁾ Biographical literature is important because it recorded the oral transmission of information from one generation to the next. Another reason for the growing significance of this historical genre is that Muslim scholars believed that the personal qualities and experiences of individuals were the key to understand politics, since "politics was the work of individuals".⁽³⁾

Because of the above mentioned reasons, biographies grew as a Historical genre and gained so much importance, that it almost became synonymous to the word history in Islam.⁽⁴⁾ Initially, Muslim biographical dictionaries were only concerned with those individuals transmitting the life of the Prophet and his tradition. Eventually, the Islamic conception of biographies broadened to include all kinds of personalities, yet Religious scholars were always preferred.⁽⁵⁾ Various categories of biographical dictionaries appeared, treating different kinds of

personalities, religious and non-religious. For example, there are biographical dictionaries which specialized in the biographies of scholars belonging to the different legal schools (madhāhib) such as the Mālikī, Ḥanbalī, Ḥanafī and Shāfi'ī scholars, or belonging to different sects, such as the Shī'ī scholars. There are also dictionaries dealing specifically with sufi figures and scholars. Biographical dictionaries also started to deal with non-religious figures such as poets, rulers, local notables (a-yān), merchants, scientists and physicians. Later, biographical dictionaries came to be encyclopedic in character, treating a wide range of important individuals living in the same century (qarn), such as the biographical dictionary of al-Sakhāwī, al-Daw' al-Lāmi' fī a-yān al-Qarn al-Tāsi'. In addition to these biographical dictionaries, the single biographical monograph became popular during the time of the Ayyubid and Mamluks. Nearly every prince at this age ordered a biographer to write his own life. The best examples of this kind of biographical monograph are the ones written on Salah al-Din al-Ayyubi and the Mamluk sultan Baybars.⁽⁶⁾

Because of the variety of the biographical dictionaries, it is only logical to expect differences in the content of such biographies. But even though they varied from one dictionary to the other according to the subject treated, they shared some common elements. In reading a medieval Muslim biographical dictionary, one can easily recognize the similarities between it and "the modern Who's Who".⁽⁷⁾ First, a statement of nomenclature is listed including the name of the subject, his title (laqab) and his family nisbas.⁽⁸⁾ Second, both dates of birth and death follow the nomenclature statement. It is the latter which is most likely to appear in the biographies and is the most exact.⁽⁹⁾ Besides these two preliminary facts, a general feature that is found in most biographical dictionaries is the tendency of nearly all biographers to stress the good ethical qualities of the individual and to avoid making personal judgements on him. "Youth, considered to be the age of follies, is ignored by biographers".⁽¹⁰⁾ This could be due to the fact that the subjects mentioned in the biographies are usually considered models for Muslims to follow. The Muslim scholars who wrote such biographies were mostly religious and were concerned with questions of piety

and ethics and therefore, "an element of character idealization"⁽¹¹⁾ can be detected in certain types of the biographical dictionaries. Furthermore, the physical features are usually specified as an important element of the character described.

Apart from the above, the rest of the content varies from one dictionary to another. In the biography of rulers and Political elites, it is the political and economic events of life that receives the most attention. Also information on family life often appear. In the case of theologians, mystics and scholars, it is their educational training, their teachers, the places they visited and the teachings and writings they transmitted that are emphasized. Besides that, there is frequent mentioning of their intellectual qualities and training.⁽¹²⁾ As for biographies of scientists and physicians they usually include bibliographies of their published works. Regarding the length of the biographical entries, it greatly varies; some entries are only three or four lines, while others reach over one hundred pages.⁽¹³⁾ It all depends on the importance of the subject treated and the amount of information that

the biographer is able to gather. The variation is not only to be observed in the content of the biographies, but also in the organization, for some are organized alphabetically, while others are organized according to the chronological period. The variety of information to be found in the biographical dictionary is very rich, yet they remain "the greatest untapped source of information on the medieval middle east".⁽¹⁴⁾

Modern researchers paid more attention to medieval biographical dictionaries dealing with Religious scholars. For example, Carl Petry analyzed the geographic origins and residence patterns of the 'Ulamā' of Cairo in the fifteenth century A.D. He based his study on 4631 cases selected from two biographical dictionaries: al-Daw' al-Lāmi' fī A'yān al-Qarn al-Tāsi' of al-Sakhāwī and al-Manhal al-Sāfi wa'l-Mustawfi ba'd al-Wāfi of ibn Taghri Birdi.⁽¹⁵⁾ Another modern study based on the biographies of 'Ulama, is that of David Stephen who analyzed The social role of scholars ('Ulamā) in Islamic Medieval Spain.⁽¹⁶⁾ There is also the short study of H. Luṭfi, who used the last volume of al-Sakhāwī's biographical dictionary on women, entitled Kitāb al-Nisā, as

a source for the social and economic history of Muslim women during the fifteenth century A.D.⁽¹⁷⁾ That most modern studies showed interest in the biographies of Religious scholars, is due to the detailed coverage of the *Ulamā* in medieval Muslim biographical dictionaries. According to Petry, it is the only class that has been recorded to the extent that it enables a sound statistical analysis.⁽¹⁸⁾ Besides, the critical position occupied by the *Ulama*, acting as a bridge between the ruling elite and the masses in medieval Muslim society, tempted many of the modern researchers to study the religious and political contributions of this religious group.⁽¹⁹⁾

In contrast, and despite of the vital medical services that physicians performed in keeping health in the healthy and restoring it in the diseased, they did not receive enough attention from both the Muslim medieval biographer and the modern researcher. Not much has been written about physicians and even a great part of what had been written is lost or scattered.⁽²⁰⁾ Besides, very few modern studies have analyzed the extant biographical dictionaries of physicians, in order to evaluate their role in Muslim Medieval society.

To compensate for this inadequacy, I have chosen the major medical biographical dictionary of 'ibn 'Abī Uṣaybi'a, entitled, 'Uyūn al-'Anbā' fī Ṭabaqāt al-'Aṭibbā', as a Historical source to evaluate the role and contribution of physicians living in Egypt and Syria under the Fatimid and Ayyubid rule.

Before starting to examine the role of physicians in Islamic society and culture, the reader will be given a general idea of the history of the writing of medical biographical dictionaries: when the writing of such dictionaries began? and who were the first to contribute to the development of medical biography. An examination of four medical biographical dictionaries is presented first in order to demonstrate how the medical biographies genre developed from the third/ninth century through the seventh/thirteenth, when 'Uyūn al-'Anbā' fī Ṭabaqāt al-'Aṭibbā' appeared, representing the final stage in the development of the Arabic medical biographical genre. The first Arabic biography of physicians and philosophers is Tarīkh al-'Aṭibbā' of Ishaq b. Hunayn which was written in the year 290/904.⁽²¹⁾ Ibn Hunayn was the son of Hunayn b. Ishaq, the

Nestorian chief of physicians in the 'Abbasid court and the Prince of Translators at this age.⁽²²⁾ He followed the footsteps of his father and helped him with his work of translation. His translations were of good quality, scholarly, and his Arabic was even better than his father's whose mother tongue was Syriac.⁽²³⁾ Most importantly 'ibn Hunayn practised medicine, and worked in the service of the 'Abbasid caliphs, until he died in the year 298/912 in Baghdad.⁽²⁴⁾ Ibn Hunayn was regarded by historians to be the first to write biographies of physicians. However, despite the fact that he claimed that his book included the biographies of physicians since the appearance of medicine till the year 290/904, it included only the biographies of physicians who lived before Islam. There is no mentioning of any of the physicians who had lived in the first three centuries of Islam. He did not even mentioned the biography of his father "Hunayn", whose name appeared in later biographical dictionaries.

The first two authors to write biographies of physicians in the early Islamic period were ibn al-Nadīm of Baghdad and ibn Juljul of Cordova. Their writings present a

new dynamic approach to the development of scientific historiography. ⁽²⁵⁾ On Abū Ya-qūb Ishāq al-Warrāq ibn al-Nadīm al-Baghdādī, not much is known about his life or his family, except that his father was a stationer (warrāq) and that he took up the same profession following in his father's footsteps. In his vocation, he was in charge of copying, binding and selling books. Because of ibn al-Nadīm's acquaintance with books and manuscripts, and because of his interest in intellectual productivity, he was able to produce in the year 377/986 a valuable work entitled: al-Fihrist (the index). In al-Fihrist, ibn al-Nadīm compiled the works of authors belonging to various scholarly branches, and divided it into ten treatises. It is the seventh treatise that is of interest to this research, since it deals with the origin of the healing arts and provides biographical sketches of ancient and modern physicians. ⁽²⁶⁾ However, this seventh treatise deals with physicians living in the eastern part of the Islamic empire only, especially in Irāq and Persia. The reason behind the frequent mentioning of Baghdadi physicians is due to the fact that it was ibn al-Nadīm's city and the capital of the cAbbasids. ⁽²⁷⁾ The Fihrist of ibn al-Nadīm covers the climax of about three

centuries of Islamic cultural productivity, and it is regarded as a valuable Arabic index which provides a wealth of information on various branches of knowledge⁽²⁸⁾, including medicine.

As for ibn Juljul, he produced his biographical dictionary of physicians in the year 377/982, the same year in which ibn al-Nadīm completed al-Fihrist. Ibn Juljul Abu Dawūd Sulaymān ibn Ḥasan al-Andalusī was born in Cordova, Andalusia in the year 332/944 and died in 384/994. He started his life studying grammar, then turned to the study of medicine when he was fifteen. He became famous in the field of medicine and worked as a personal physician of the Umayyad caliph, al-Mustansir. He wrote several books, the most important of them is his biographical dictionary of physicians entitled, Ṭabaqāt al-ʿAṭibbāʾ wa'l Ḥukamāʾ.⁽²⁹⁾ The Encyclopedia of Islam mentions that this work is considered as the oldest biographical collection of physicians in Arabic, after Ṭabaqāt al-ʿAṭibbāʾ of ibn Ḥunayn.⁽³⁰⁾ However, Sayyid, who edited ibn Juljul's work, states that ibn al-Nadīm's biographical collections of physicians preceded it. He also adds that ibn Juljul could be considered the first

one to treat this subject in al-Andalus but not the first one in Dār al-Islām.⁽³¹⁾ Ibn Juljul starts his biographical work specifying the achievements of the pre-Islamic physicians. He first mentions Greek, Roman and Alexandrian physicians, then physicians in Dār al-Islām. This latter group is treated in one section, except for the physicians of al-Maghrib and al-Andalus who were given a special section. One might say that the geographical division appearing in the work of ibn Juljul might be due to a sense of geographical pride in his native region. However, this pride in geographical locality does not negate his awareness of Dār al-Islām as one cultural region since he included in his work physicians belonging to different Islamic regions; demonstrating that he regarded his region as a part of the great whole: Dār al-Islām. One can argue that ibn Juljul's book is the first specializing in the biographies of physicians in Dār al-Islām. It is probable that our author's collection of biographies of physicians is preceded by ibn al-Nadīm, but ibn al-Nadīm's work was not a biographical dictionary in the strict sense, it was a more general catalogue in which only one treatise deal with sketchy biographies of physicians.

It was three centuries later (seventh/thirteenth century), that another biographical dictionary of physicians is known to have appeared, written by Abu'l-Ḥasan ʿAli b. Yusuf al-Qiftī, this biographical dictionary is entitled Ikhbār al-ʿUlamāʾ bi Akhbār al-Ḥukamāʾ. Al-Qiftī was born in the year 568/1173 in a commercial town in Egypt called Qift. When he was still young, al-Qiftī went to Cairo, where he studied different branches of learning; later he served prince Maymūn al-Qusrī, as a Judge in Aleppo. Then he entered the service of the Ayyubid sultan, al-Malik al-ʿAzīz, who promoted him to a ministerial office. Al-Qiftī remained in this office until he died in the year 646/1248. While he was holding this post, he had the opportunity to help other scholars and to continue his own literary activity.⁽³²⁾ Al-Qiftī produced several works, the only one that still exists is the above mentioned biographical dictionary of scientists. This work includes around three hundred biographies, arranged alphabetically, of physicians, astronomers, philosophers, mathematicians and engineers from ancient times till the sixth/twelfth century.⁽³³⁾ Unlike ibn Juljul, al-Qiftī did not give any importance to

classification according to Geographical location. And inspite of the fact that he was born in Egypt, he did not dedicate a section to the biographies of Egyptian scientists.

Several other medical biographical dictionaries were produced by scholars in Dār al-Islām, yet I have chosen to discuss the above mentioned four in particular because they reflect the different developments which the medical biographical genre have undergone. The book of ibn Hunayn was the first biographical dictionary of pre-Islamic physicians influencing the training and medical knowledge of physicians under Muslim rule. Al-Fihrist of ibn al-Nadim was the first bibliographical work to include the works and biographies of physicians in Dār al-Islām. Tabaqāt al-Atibbā' of ibn Juljul is the first book to appear, specializing in medical biography, giving priority to al-Maghrib. As for al-Qiftī's dictionary, its importance lies in the fact that it includes the category of physicians among other scientists. These four dictionaries represent the different stages of development of Arabic medical historiography, leading to the final stage, to which ibn 'Abī

Usaybi'a's book *Uyūn al-Anbā'* belongs. Before going into a detailed discussion of ibn 'Abī Usaybi'a's work, it is important to note that only two of the four biographers under consideration were related to the medical profession. Ibn al-Nadīm was a book dealer while al-Qiftī was both a judge and a *wazīr*. This shows that recording biographies of physicians was not limited only to people in the medical field. However, both ibn al-Nadīm and al-Qiftī were interested in recording the contribution of Muslim scholars or scientists in general, and the contribution of physicians was recorded only as part of the Muslim intellectual tradition. In the case of ibn Ḥunayn and ibn Juljul, one finds that as physicians, they seem to be more interested in dedicating their work to recording the contributions of scholars in their field of specialization. Furthermore, it is interesting to observe that all the four authors under consideration were connected somehow to the power structure; they were all working in the service of caliphs and princes. Ibn Ḥunayn was working in the service of the Abbasid caliphs and wrote his book as an answer to the request of the *wazīr*, Abu'l Ḥasan Wālī al-Dawla.⁽³⁴⁾ As for ibn al-Nadīm, even though there is not much information known of

his relation to the elite, yet his book al-Fihrist is dedicated to a patron prince.⁽³⁵⁾ Ibn Juljul was working in the service of the Umayyad caliph al-Mustansir⁽³⁶⁾, and he wrote his book in response to the request of a member of the Umayyad ruling family in al-Andalus.⁽³⁷⁾ Finally, al-Qiftī was himself part of the power structure, serving as a wazīr under the rule of the Ayyubid Sultan al-Malik al-ʿAzīz. The relation of our four authors to the power structure, shows how rulers in Muslim society were patrons of science and were encouraging the production of scholarly works. A great part of the success of the scholars and physicians under consideration was due to the courtesy, generosity and tolerance that Muslim caliphs showed to all of them, Muslims and non Muslims alike, as in the case of Ishāq ibn Hunayn.⁽³⁸⁾

ʿUyūn al-Anbāʾ fī Ṭabaqāt al-ʿAṭibbāʾ is the last and most important work on the history of medicine in the medieval period. It was written by ibn ʿAbī Uṣaybiʿa in the year 643/1245. Muwaffaq al-Dīn Abu'l ʿAbbās Aḥmad b. al-Qāsim b. Khalīfah b. Yūnus al-Khazrajī; a physician and bibliographer whose nickname, ibn ʿAbī Uṣaybiʿa, was probably derived from

the fact that one of his ancestors had a deformed hand.⁽³⁹⁾ He was born in the year 600/1202 in Damascus and was brought up in a family of physicians. Being a son of an oculist and a nephew of a famous physician, he had been introduced to medicine early in his life. He first studied the Qurān, Muslim traditions, Arabic Language and grammar, then turned to the study of medicine under the supervision of his father. Later he joined the medical school of a physician named Muhadhab al-Dīn 'Abd al-Raḥīm b. 'Alī, in Damascus, whose detailed biography is included in ibn 'Abī Uṣaybi-a's work. For further training, ibn 'Abī Uṣaybi-a joined al-Nūrī hospital in Damascus and al-Nasirī hospital in Cairo.⁽⁴⁰⁾ He became a competent famous physician and produced several works on medicine which seem to be no longer extant. However, we came to know of them because their names appeared in his biographical dictionary.

Ibn 'Abī Uṣaybi-a's 'Uyūn al-'Anbā' is a collection of nearly four hundred biographies of physicians living prior to and during the Islamic period. It is considered the best biographical collection of physicians to exist in both Eastern and Western societies up to the European

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Renaissance.⁽⁴¹⁾ This "precious, unique monument"⁽⁴²⁾ is a product of all the research and work done by the scholars and physicians who preceded him. Ibn 'Abī Uṣaybi'a obtained information from several Greek and Arabic sources.⁽⁴³⁾ However, it was the above mentioned dictionary of ibn Juljul that had the greatest influence on his writing. A collation of the two texts shows that ibn 'Abī Uṣaybi'a had in some cases copied closely or summarized the biographies in ibn Juljul's text.⁽⁴⁴⁾ Furthermore, ibn 'Abī Uṣaybi'a seems to have also adopted ibn Juljul's method of arranging biographies according to Geographical location and chronological period. However, in composing his work, ibn 'Abī Uṣaybi'a depended to a great extent on oral transmission. A large part of the contemporary data included in his biographies, is first hand information or data transmitted by his father or uncle, both eminent physicians at this age. As for the literary style of ibn 'Abī Uṣaybi'a, it contains features of entertaining style.⁽⁴⁵⁾ He included poetry composed by or for physicians, philosophical sayings, anecdotal stories and humorous quotations, all of which make the reading easy and entertaining.⁽⁴⁶⁾

In the introduction of his work, ibn 'Abī Uṣaybi'a states:

"Since the healing art is the most honorable of all professions and crafts.... it was recommended in the religious commandments so that medicine became equal to theology.... Therefore, one should pay the greatest attention to medicine and, in acquiring it, should devote the time to learning the general and specific, theoretical and practical laws concerning its study.... From the time in which medicine was practised to our day, many famous names are attached to this profession as is well illustrated by their existing writings.... I found, however, none who cared to write a comprehensive work on the classes of physicians and their deeds Ṭabaqāt al-ʿAṭibbā'.... I, therefore, saw fit that I should include in this book anecdotes and data on the earliest among the ancient and modern physicians and their books.... which testify to their contributions.... and I have divided it into fifteen sections".⁽⁴⁷⁾

As clear from this introduction, ibn 'Abī Uṣaybi'a devotes the bulk of his work to the study of the lives and contribution of ancient and contemporary physicians of his period. He classified them by the countries in which they lived, dividing his work into the following sections:

1. Origins of Medicine.
2. Earliest physicians.
3. Descendant of Aesculapius.
4. Hippocrates and his Contemporaries.
5. Galen and his Times.
6. The Alexandria physicians.
7. Arab physicians at the beginning of Islam.
8. Assyrian physicians under Early -Abbasids.
9. Translators and Copyists.
10. Physicians in Iraq, Jazīrah and Diyār Bakr.
11. Physicians in Persia.
12. Physicians in India.
13. Physicians in Spain and al-Maghrib.
14. Physicians in Egypt.
15. Physicians in Syria.⁽⁴⁸⁾

These fifteen sections give the most complete history of physicians in Dār al-Islām and a good deal of information on ancient Greek and Roman medicine. It is in the last two sections that ibn 'Abī Uṣaybi'a reaches the highest degree of scholarship and originality for he mentions physicians whom

he had met in his life, friends, colleagues, students, tutors and family members. Ibn 'Abī Uṣaybi'a included a lengthy detailed biographical entry that covers the lives of both his uncle Rāshid al-Dīn and his father. It is here that most of the information included came through the word of mouth, personal knowledge and experience. The originality of the information mentioned in these two last sections encouraged me to study them in depth. In this research, I intend to analyze systematically and quantitatively the Historical data included in these last two sections in 'ibn 'Abī Uṣaybi'a's biographical dictionary in order to evaluate the role and contribution of physicians living in Egypt and Syria under the Fatimid and Ayyubid rule. Using ibn 'Abī Uṣaybi'a's work and other sources examining the medical practice it is hoped that a balanced picture of the life of physicians and medical institution in medieval Muslim society will be reconstructed.

But before analyzing the work of ibn 'Abī Uṣaybi'a, which will form the substance of both the third and fourth chapters, I would like to draw attention to the state of the arts after ibn 'Abī Uṣaybi'a died. His work includes

biographies of physicians up to the year 646/1248, when the author died. But what about later physicians? Where can one find information concerning later physicians? It is surprising to find out that no other biographical dictionary of physicians is known to have been composed for later periods. After the work of ibn 'Abī Uṣaybi-a, biographical entries of physicians became scattered in different chronicles and general biographical dictionaries.⁽⁴⁹⁾ It was only in the year 1942, that a physician called Aḥmad 'Isa collected the scattered biographies of physicians, and gathered them together, beginning with the year 650/1252 until the modern times. Dr. 'Isā produced a book that included over seven hundred biographical entries, and gave it the traditional title of a sequel Dhayl 'Uyūn al-'Anbā' fī Tabagāt al-Aṭibbā', because he considered his work a continuation of the work of ibn 'Abī Uṣaybi-a. He started from where the latter had stopped, and included the biographies of those physicians who were living during the life of ibn 'Abī Uṣaybi-a but who were not mentioned by him.⁽⁵⁰⁾

Even though one can argue that ibn 'Abī Uṣaybi-a's work was fairly a comprehensive one in which the author succeeded to include the biographies of the most important physicians living up to his time, he neglected to include some of the eminent physicians living during or before his time. For example, it is surprising to observe that he did not include the biography of the famous physician ibn al-Nafīs who was his colleague. The reason behind this could be due to the personal rivalry between the two physicians. Ibn 'Abī Uṣaybi-a and ibn al-Nafīs were both well-known physicians in Egypt, and both of them were students of the same tutor and worked in the same hospital of al-Manṣūrī. While ibn 'Abī Uṣaybi-a was only a chief of department in the hospital, ibn al-Nafīs was the chief of all the Mansūrī hospital⁽⁵¹⁾. Here, it can be fairly argued that personal grudges made ibn 'Abī Uṣaybi-a deliberately omit the mention of ibn al-Nafīs in his work. Furthermore, as a biographer, ibn 'Abī Uṣaybi-a did not care to mention the ordinary medical practitioners who practised medicine among the middle and lower classes and where women practitioners may have figured more prominently. Any reader of ibn 'Abī Uṣaybi-a's work, can easily observe that our

biographer seems to have concentrated on the lives and contributions of famous physicians who were often connected to the elites. All this will be discussed at length in the coming chapters. Furthermore, the data collected is uneven, often information such as dates, places of birth, religion, details on medical training and contributions are mentioned in some biographies but not in others, a matter which of course, makes the data harder to work with. Nevertheless, given these reservations, the work of ibn 'Abī Uṣaybi'a can still be considered as the most complete history of physicians for the Fatimid and Ayyubid period. It is a source that contains a mine of information on medieval Islamic medicine, and which provides numerous insights into the social lives of physicians.⁽⁵²⁾

Finally, the Muslim biographers mentioned in this chapter, including ibn 'Abī Uṣaybi'a, generally appear to be objective in their judgement and critical in their approach. Although they copied from other sources, they seemed to be discriminative and cautious in avoiding unauthentic and unreasonable stories. In addition, they appeared to have acquired training and knowledge in different fields of

scholarship, and were therefore familiar with the cultural trends in Dār al-Islām as a whole. In general, those who contributed to the writing of medical historiography deserve our thanks and admiration. Their works and achievements are even more appreciated when compared to similar scholarly developments in the western society during the same period or even much later.⁽⁵³⁾

NOTES

¹ Franz Rosenthal, A History of Muslim Historiography.
2nd ed. (Lieden, 1968), p. 100.

² Ibid., p. 100

³ Ibid., p. 101

⁴ Ibid., p. 101

⁵ Ibid., p. 93

⁶ Jack A. Crabbs, Jr., The Writing of History in
Nineteenth Century Egypt (Cairo, 1984), p. 32.

⁷ Carl Petry, Geographic Origins and Residence Patterns
of the 'Ulama of Cairo, Vol. I (Michigan, 1974), p. 13.

⁸ Ibid., p. 13

⁹ Ibid., p. 14

¹⁰ Huda Luṭfī, "Al-Sakhāwī's Kitāb al-Nisā as a Source
for the Social and Economic History of Muslim women During
the Fifteenth Century A.D.", Muslim World, LXXI (1981),
pp. 105-123.

¹¹ Ibid., p. 107.

¹² Rosenthal, Muslim Historiography, pp. 101-103

¹³ Ibid., p. 101.

¹⁴ R. Bulliet, "A Quantitative Approach to Muslim Biographical Dictionaries.", JESHO XIII (1970), pp. 195-211.

¹⁵ Petry, Ulamā, p. 7.

¹⁶ David Stephen, The social Role of Scholars (Ulamā) in Islamic Spain: A study of Medieval Biographical Dictionaries (Tarājim), (Ph.D. Thesis, 1983).

¹⁷ For more information on women in medieval Muslim biographical literature, see H. Luṭfī, "al-Sakhāwī's Kitāb al-Nisā", and J. Berkey, "Women and Islamic Education in the Mamluk Period (In press: N. Keddie ed., Gender Roles and Shifting Boundaries in Past and Present Muslim Society).

¹⁸ Petry, Ulamā, p. 4.

¹⁹ Ibid., p. 4.

²⁰ Aḥmad ʿĪsā, Mu-jam al-ʿAṭibbā: Dhayl ʿUyūn al-ʿAnbāʾ fī Ṭabaqāt al-ʿAṭibbā (Cairo, 1942), p. 4.

²¹ Franz Rosenthal, "Tārīkh al-ʿAṭibbāʾ wa'l Ḥukamāʾ Li-Ishāq ibn Ḥunayn", Oriens, (1954), pp. 55-80.

²² Amīn Khayrallah, Outline of Arabic Contribution to Medicine (Beirut, 1949), p. 44.

²³ Ibid., p. 51.

²⁴ Ibn 'Abī Uṣaybi'a, 'Uyūn al-'Anbā' fī Ṭabaqāt al-Ātibbā' (Cairo, 1889), Vol. I, p. 200.

²⁵ Sami Khalaf Hamarnah, Health Sciences in Early Islam, Vol. I (Texas, 1982), , p. 231.

²⁶ Ibid., p. 231.

²⁷ Encyclopedia of Islam, "ibn al-Nadim".

²⁸ Hamarnah, Health Sciences, Vol. I, p. 231.

²⁹ Encyclopedia of Islam, "ibn Juljul".

³⁰ Ibid.

³¹ 'Abī Dāwūd ibn al-Ḥasan al-Andalusī ibn Juljul. Ṭabaqāt al-Ātibbā' wa'l Ḥukamā' (Cairo, 1955), see the introduction.

³² Encyclopedia of Islam, "Ibn al-~~Q~~iftī"

³³ Ibid.

³⁴ Rosenthal, Oriens, p. 73.

³⁵ Hamarnah, Health Sciences, Vol. I, p. 232.

³⁶ Ibn Juljul, Ṭabaqāt al-Ātibbā', see the introduction.

³⁷ Ibid., Introduction.

³⁸ Khayrallah, Outline to Medicine, p. 43.

³⁹ Encyclopedia of Islam, "ibn 'Abī Uṣaybi'a".

⁴⁰ Hamarnah, Health Sciences, Vol. I, p. 184.

⁴¹ Ibid., p. 185.

⁴² Khayrallah, Outline to Medicine, p. 35.

⁴³ Ibid., p. 35.

⁴⁴ Ibid., p. 35.

⁴⁵ Encyclopedia of Islam, "ibn 'Abī Usaybi'a".

⁴⁶ Ibid.

⁴⁷ Ḥamarnah, also agrees with my views regarding ibn 'Abī Usaybi'a's style of writing.

⁴⁸ Ibn 'Abī Uṣaybi'a, Uyūn al-Anbā', see the introduction.

⁴⁹ Khayrallah, Outline to Medicine, p. 35.

⁵⁰ Some of the primary sources in which information about physicians were scattered: al-Sulūk of al-Maqrīzī, al-Manhal al-Ṣāfi of ibn Taghribardī, al-Daw al-Lāmi of al-Sakhāwī, and al-Durar al-Kāminah of ibn Ḥajar..

⁵¹ Aḥmad 'Īsā, Dhayl 'Uyūn al-Anbā', p. 4.

⁵² Khayrallah, Outline to Medicine, p. 55.

⁵³ Ḥamarnah, Health Sciences, Vol. I, p. 239.

⁵⁴ Ibid., pp. 240-241.

CHAPTER TWO

A GENERAL HISTORICAL SURVEY OF MEDIEVAL ISLAMIC MEDICINE

Having described the biographical dictionaries of physicians as a source for studying the role of physicians in medieval Muslim society, an attempt will be made here to provide a brief survey of the medieval medical practice in Muslim culture. First, a short historical account of medieval medical practice is provided along with the theory that inspires that practice. Second, the medical institution in Medieval Islamic society will be described: What it meant to be a doctor in this society? Who practised medicine? What was the social and economic position of physicians? What was the relationship between the physician and society and what constituted the ethics of the physicians? Where was medicine practised, and what were the kinds of drugs used in medical treatment? All this information is of great importance for the researcher studying the profession and the role of physicians in Muslim society. Therefore, before focusing on the Fatimid-Ayyubid

physician, some background information on Islamic medicine in general will be provided.

A. A Short Historical Account of the Legacy of Medieval Islamic Medicine:

When the Arab Muslims conquered the Middle East and North Africa in the seventh century A.D., they did not destroy the civilization or the intellectual legacy of the conquered lands. On the contrary, they came to embrace significant elements of the culture of the vanquished subjects and preserved their literary legacies.⁽¹⁾ The Arab Muslims were aware of the fact that the experiences and attainments of former nations were of great value. They assimilated the cultural achievement of the conquered nations in various fields and added to them their own independent investigations, the result of which had been extremely valuable. The medical tradition that flourished in Medieval Islamic society "was first imported but soon improved upon and greatly enriched by significant additions, investigations, and intelligent personal observations, experiences and experiments".⁽²⁾

The Arab Muslims assimilated the medical legacies of earlier civilizations, Assyrian, Babylonian, Nabatean, Indian, ancient Egyptian and Greek. The latter seemed to have been the richest, finest and most influential in the field of medicine and, therefore, it greatly influenced the Islamic learning of medicine.⁽³⁾ Nevertheless, it should always be kept in mind that, while learning from their Greek predecessors, the Muslim physicians were always adding substantial original observations and ideas of great lasting value.⁽⁴⁾ The predominance of the Greek tradition was due to the fact that the bulk of the population of the newly established empire was made up of Hellenized Christians, Jews and other religious cultures. Besides, their centers of learning continued to exist during the Islamic period. An example of one of the important centers of Hellenistic learning, is the Alexandrian old school.⁽⁵⁾ Greek medicine was practised in this school along with ancient Egyptian medicine. This Alexandrian institution played a great role in transmitting the Egyptian and Greek scientific tradition to the Arabs. In his medical dictionary, ‘Uyūn al-‘Anbā’, ibn ‘Abī Uṣaybi‘a devoted an entire section to discussing the

Greco-Roman medical literature taught in this institution. He explained how Alexandrian practitioners and educators utilized the Greek tradition and how they relied on it as the major part of the curricula in their institution. This medical institution lasted until the eighth century when caliph Umar transferred it to Antioch. Subsequently, the medical curriculum which was studied in the Alexandrian school continued at Antioch, and became the basis of medical education in the Islamic period.⁽⁶⁾

Besides the Alexandrian school, Greek medicine was maintained in Islamic society through another channel. It was maintained through the Nestorian Christians, who were expelled from the Byzantine empire and migrated to Persia where the Sassanian rulers welcomed them. This group of Christians came to form a school of medicine in the city of Gondeshapur. The school of Gondeshapur had its mark on the development of Islamic medicine, especially under the Abbasid caliphs who sent for physicians from Gondeshapur to treat them. These physicians played a great role in spreading the Greek medical tradition in Baghdad and eventually, in the whole Islamic empire. Furthermore, the

first hospital built in Baghdad was designed and staffed by physicians from Gondeshapur.⁽⁷⁾

The greatest channel by which the Greek tradition influenced Islamic medicine however, was the translation movement. Most of the Hellenistic cultural legacy was transferred to the Islamic culture through the translation of Greek scientific works into Arabic. The Muslim caliphs, especially the Abbassids, gave great importance to this translation movement. They made every effort to collect the existing Greek medical manuscripts, and then appointed capable men to study and translate them. They paid ample sums of money to keep the movement going.⁽⁸⁾ Baghdad became the centre for the translation of Greek culture in Dār al-Islām. The translators were characterized by honesty, ability and thoroughness. They had good knowledge of languages and subjects they treated.⁽⁹⁾ The Muslim rulers depended on Nestorian Christian and Sabian subjects for the translation of Greek classics. This might be due to the fact that both the Nestorians and Sabians were the custodians of Greek science when the Muslims invaded the Fertile Crescent.⁽¹⁰⁾ One of the early important Nestorian

translators was Ḥunayn b. Ishāq al-ʿIbādī. Ḥunayn was born in al-Ḥīra in Irāq in the year 809 A.D. but little is known about his early life except that he came from an Nestorian family. He was known as the "Prince of Translators", because he translated most of the Greek works especially the books of Galen and Hippocrates. He had a thorough knowledge of four languages, Syriac, Arabic, Persian and Greek. His perfection of these four languages, opened the door of translation to him, and he translated a great number of medical books. His translations however, were not only limited to medical books, but extended to other fields such as mathematics, logic, philosophy and astronomy. The works of Ḥunayn "their variety, their superiority and their importance, make him the chief figure among the conveyors of Greek culture and science to the Arabic speaking world".⁽¹¹⁾ Ḥunayn was assisted by his son Ishaq and his nephew Ḥubaysh al-Assām. The latter was a good translator and practitioner, and worked as a court physician to the ʿAbbassid caliph al-Mutawakkil.⁽¹²⁾

Another well-known translator was the Christian Qusta b. Luqa who came from Baʿalbak and had good knowledge of

Arabic, Greek and Syriac.⁽¹³⁾ Also a Sabian, Thābit b. Qurrah, his son Sinān, and his grandson Thābit represented three generations of famous translators. Another family of Physicians is the Bakhtishu family. This family dominated the Islamic medical scene for two and a half centuries. Despite the fact that the Bakhtishu family did not contribute much to the translation movement, they "gave the first spark which was to light the sacred fire" to Arabic Renaissance.⁽¹⁴⁾ They were the Deans of the Gondeshapur medical school which was the major medical center at this age.⁽¹⁵⁾ All the above mentioned names and several others had greatly contributed to the translation movement, including medical works. Thanks to their great efforts and the generous tolerant policy of the Muslim caliphs, that the Arab speaking peoples had access to most of the Greek literature. They had available nearly every work by the great Greek scientists and physicians especially those of Galen and Hippocrates⁽¹⁶⁾ and so made available in Arabic the most important literature from the Greek medical tradition.

Out of all the Greek medical works, it was the work of Galen that greatly attracted the interest of translators.

The comprehensive and philosophical interests of Galen made his work agreeable to the physicians in medieval Muslim society. As for Hippocrates, physicians under consideration, highly respected and esteemed him. However, his works did not attract their interest as Galen's did. To them, Hippocrates only "followed the shadow of Galen".⁽¹⁷⁾ He is credited for laying the foundation for the development of medicine and he is the one who set the ethical standards and rules of the medical profession and his oath is still being sworn to, by the thousands who join the medical profession each year.⁽¹⁸⁾ Hippocrates believed that disease was the result of the lack of harmony of four substances in the body: blood, phlegm, yellow bile and black bile.⁽¹⁹⁾ This idea of lack of harmony was later elucidated and molded by Galen into a comprehensive theory known as the "Humeral theory"⁽²⁰⁾. Galen was a great medical genius, and made a long study of anatomy, achieving great results in physiology and pathology. He corrected many of the errors of his predecessors and added to it his own achievements.

Because Galen's medical philosophy greatly influenced Arab physicians during the medieval Islamic period, I will

mention briefly its theoretical basis. Galen believed that all things on earth are composed of four elements: fire, earth, air and water. Each one of these elements has a quality:

Fire	=	hot	+	dry
Earth	=	cold	+	dry
Air	=	hot	+	wet
Water	=	cold	+	wet

In the human body four humors result from these elements. They are: [1] blood, [2] Phlegm, [3] Yellow bile and [4] black bile. Air corresponds to blood, water to phlegm, fire to yellow bile and earth to black bile. Each one of the four humors has the qualities of the element with which it corresponds. The balance of these qualities normally produces a state of health.⁽²¹⁾ The Arab speaking physicians inherited this theory from Galen, but they gave the four elements Arabic names, (Banāt al-Arkān), and called the four humors, (al-akhlāt). The state of balance, health equilibrium, was translated in the Arabic medicine as (i-tidāl al-mizāj). In cases when the balance is upset, it

is called in Arabic (al-mizāj al-khārīj -an al-i-tidāl), which causes illness.⁽²²⁾ "The word mizāj is to this day the word used in Persian and Turkish as well as sometimes in Arabic, to denote 'health'".⁽²³⁾ Using this theory of balance based on the equilibrium of the four humors in the human body, physicians diagnosed diseases and prescribed the appropriate drugs for curing them. All the medical manuals from that period presupposed knowledge of this medical theory, without which no practitioner could properly function as a healer of disease in his society.

B. Description of the Medical Profession:

After a brief account of the history of Arab/Islamic medicine and the basic theory that inspired it, it is necessary to provide the reader with a short historical description of the medical profession in Medieval Islamic society. The medical profession was "the vocation of those medical practitioners who adhered closely to the principles of Galenic medicine".⁽²⁴⁾ It used to be more informal and loose than it is in modern times.⁽²⁵⁾ That is, medical education was not strictly institutionalized, or taught

within specialized medical institutions like today. There was relative freedom in the educational methods followed. From information on medieval Islamic period, three types of schools were known to prepare medical students for the profession:

1. medical education at the hospital: In hospitals there were lecture rooms and libraries. There the students gained theoretical and practical teachings that took place near the bedside of the patient.
2. Private medical colleges: These kinds of colleges were established and run by well known physicians.
3. Private tutoring by one master to one or two pupils. This education also provided both theoretical and practical training. The theoretical part involved the study of certain medical books on the recommendation of the master, and the practical part entailed the student accompanying his master during his visits to the homes of patients, or at his clinic.⁽²⁶⁾ The third method of teaching sometimes meant that the master was the father teaching the son or daughter the rules of the profession. At that time, it was common to see several generations of physicians in the same family.⁽²⁷⁾ In addition to the above three methods

of teaching, there was the self-teaching method. The best example of this method, was 'Alī ibn Riḍwān, who will be dealt with in more details in the coming chapter.

Nevertheless, whatever the source of study, it was customary for medical students to start their assignment by reading Greek legacies specifically those of Galen and Hippocrates, followed by compendiums written by Arabic authors.⁽²⁸⁾ Students often memorized major works by heart believing that memorization should precede understanding. The physician 'Abd al-Laṭīf al-Baghdādī whose detailed biography is included in the work of ibn 'Abī Usaybi'a, emphasized the importance of memorization by saying;

"When you read a book, make every effort to learn it by heart and master its meaning. Imagine the book have disappeared and that you can dispense with it unaffected by its loss".⁽²⁹⁾

Finally, it should be noted that the effect of Greek legacies on the education of physicians in medieval Muslim society, did not mean that they were mere imitators of the Greek. The physicians, whatever their Religious background

was, studied, analyzed, edited and improved Greek legacies and then added their own keen observation and experience to develop their own medical practice and give it its genuine character. Medicine during the Islamic period was, therefore, a continuation and development of the Greek medicine, not merely an imitation of it.

At this point, an important question should be raised: Who practised medicine in Medieval Islamic society? Medicine seems to have been a "cosmopolitan profession", it was open to all, the rich and the poor, the Muslims and the non-Muslims.⁽³⁰⁾ Non-Muslim physicians had a great role in the development of Islamic medicine. There was a large number of Christian and Jewish physicians in the population as a whole, and naturally, the dhimmis were the bearers of the ancient tradition. Yet with the passage of time a number of them converted to Islam, especially during the Fatimid period. However, inspite of the numerous conversions of non Muslims, Christians and Jews continued to play a major role in the medical scene of Medieval Islamic society. Usually Christian and Jewish physicians were also Religious leaders of their respective

communities.⁽³¹⁾ Numerous examples of non-Muslim Physicians will appear in the coming chapter. Poverty in Muslim society did not seem to prevent a person from entering the medical profession. The best example of physicians coming from poor background, is the most eminent Egyptian physician, 'Alī ibn Riḍwān.⁽³²⁾ Furthermore, sex did not seem to constitute a barrier for acquiring medical education; women seem to have practised medicine. As mentioned before, some women did inherit the medical profession from their fathers and were trained by them. Since the early Islamic period, women played a role in the medical profession and specifically as nurses. There are many examples of women going out during the raids of the prophet, to nurse soldiers and heal their wounds. Moreover, women worked as physicians, specializing in the field of midwifery. It is said that Abu al-Qāsim al-Zahrāwī, a famous Andalusian physician, used to train women in such a field. Also in al-Andalus during the reign of al-Mansūr, a famous female physician and her daughters all gained fame in the field of gynecology and were treating the Harim of the caliph.⁽³³⁾ In many cases, the obstetrical work was performed by women under the direction of a male physician. Nevertheless,

women were not only limited to the field of midwifery and treatment of female diseases, they also practised other kinds of medicine,⁽³⁴⁾ such as the example of a woman by the name of Zaynab who gained distinction as an oculist during the days of the Ummayyads.

Physicians had a special intellectual position in their society, and some of them enjoyed a high degree of prestige in Medieval Islamic society. The ruling elites always needed the medical help of physicians, and in order to guarantee medical treatment, they patronized medical institutions and famous physicians received generous endowments from the powerful and the wealthy. But physicians were usually trained as philosophers (hukamā), who should be indifferent to money. Medicine, after all, was only part of a whole approach to knowledge. Yet physicians in practising medicine, were expected to make money. To them, medicine was a means of livelihood.⁽³⁵⁾ Some physicians succeeded in making a compromise between the "philosopher-physician" vocation. They reached this compromise by taking great sums of money from wealthy patients, living on a part of it, and spending the rest on

charitable acts. Ibn Riḍwān was one of those physicians who succeeded in making such a compromise. According to him, "a man should study medicine with the intent of acquiring art not money, but this did not mean that he would lose the chance of making money".⁽³⁶⁾ Predictably, the money given to a physician as payment for medical services, depended on the status of both physician and patient.

While some physicians were influential and eminent, others were less successful and more ordinary. Physicians' fees ranged from three dirhams a week to one thousand dinar, given to a Jewish physician who succeeded in healing the sultan of Tunisia.⁽³⁷⁾ Eminent physicians were paid very high salaries and were given expensive gifts. Not only this, but physicians connected to rulers, were often granted land, as *iqṭā'*, and other real estate property. Almost all of the physicians included in the dictionary of ibn 'Abī Uṣaybi'a belonged to this group. It is difficult to determine from the information culled from his work, the salary and pay of the ordinary physician. We are told that physicians were generally known for being greedy, and many of them, to increase their wealth, engaged in commerce.

They did not regard it unfitting with the dignity of their profession, to engage in commerce on the side.⁽³⁸⁾ Some physicians became very influential, gaining prestige through their education, wealth and association with the rulers and the elite.⁽³⁹⁾

The relationship between the physician and the patient in Medieval Islamic society seems to have been informal and personal, but was bound by a medical code of ethics. The physician-patient relation was loosely defined by the hisba manuals.⁽⁴⁰⁾ In theory, the muhtasib, the person in charge of hisba, was responsible for supervising, among other professions, the medical practices. He required that the physician should take an oath before he was given the legal permit to practise medicine. Al-muhtasib ordered the physician to show his ability in writing prescriptions for patients, diagnosis for illness and its treatment. In addition, al-muhtasib was responsible for appointing the chief physician in the community. Much of the credit for enforcing ethical laws in the medical profession, and the enacting of strict rules and regulations influencing public health in Islam, should be attributed to the hisba.

system.⁽⁴¹⁾ Nevertheless, often the supervision of al-muhtasib had not been quite forceful. Several medieval physicians criticized fraud and malpractices committed by quacks and charlatans and wrote books protesting against unethical practices.⁽⁴²⁾ The famous physician, ibn Ridwān, severely criticized the ignorance and quackery of some physicians, and in one of his books emphasized the seven qualities that are essential in every physician:

"

1. The physician must be perfect in body and mind, intelligent, of a good memory and a benevolent nature.
2. He should be clean in body and dress.
3. He should keep the secrets of his patients and not divulge them to anybody.
4. His desire for cure of his patients should be stronger than his desire for the fee; and his desire in treating the poor stronger than his desire for treating the rich.
5. He should be industrious in seeking wisdom and knowledge and zealous in doing so.
6. He should be clean in heart and moral in character. He should never think evil regarding the women he treats and the riches that he sees in the homes of his

patients. He should not touch any of them.

7. He should be worthy of the trust placed in him regarding the lives and riches of his patients. He should never prescribe deadly medicine; should never do any abortion nor teach others how to do it. He should treat his enemies with the same spirit, interest and willingness, with which he treats his loved one".⁽⁴³⁾

Finally, despite of the fact that the hisba rules did not seem to be effective in some cases. They paved and extended the way to organize the practices and specialization in the health profession during medieval Islamic period.⁽⁴⁴⁾

One of the qualities that ibn Ridwān mentioned as essential for the physician, is that he should never "think evil regarding the women he treats". So one wonders, how the relationship between the male physicians and the women patients was like! According to Islamic ideals, a man should not look at the body of a woman who is not his close relative. However, in the field of medicine, male physicians did treat women; in spite of the fact that women physicians existed in Muslim society. This was because the

latter group were not much in number and were not experts in all fields.⁽⁴⁵⁾ A number of male physicians who excelled in the field of gynecology appeared and were famous for the treatment of women disease. An example of this group is Abu'l-Qāsim al-Zahrāwī, the Andalusian physician, who was mentioned earlier. Nevertheless, in some medical books, it is mentioned that male physicians did not come into contact with women directly. It is said that they used to stand behind a curtain and give instructions and orders to female assistants who performed the treatment of the women patients.⁽⁴⁶⁾ In the book of ibn 'Abī Uṣaybi'a, few cases were mentioned in which male physicians treated females, but this will be further discussed in the coming chapter.

In general, physicians practised medicine in their clinics, homes of patients or in hospitals. It is the latter that will be explained in detail in the coming section to show the role of hospitals in Medieval Islamic society. Hospitals in Medieval Islamic society were public institutions, and were considered to be "among the great glories of Islam".⁽⁴⁷⁾ Hospitals in classical Arabic were referred to by the Persian name bimaristān (place of the

sick). This is so, because they were greatly influenced by the model hospital of Gondeshapur in Persia.⁽⁴⁸⁾ Hospitals in Islam were usually established by the effort of caliphs, rulers and noblemen. The first hospital in Islam was founded by the Ummayyad caliph al-Walīd b. ʿAbd al-Malik in the year 88 A.H. With the development of Islamic medicine, hospitals in the proper sense came to be built during the days of the ʿAbbasid caliphate. Different kinds of hospitals were established; some were established for specific purposes such as hospitals for lepers, the insane, and the blind. While others were general hospitals.⁽⁴⁹⁾ In general, Islamic hospitals were similar to a great extent; each hospital was divided into two main sections, one for male patients and the other for females. Each section was divided into different wards, for eye disease, for surgery, orthopedics and other wards for different kinds of diseases. Each section of the hospital was headed by a physician and the hospital as a whole was administered and directed by the head of physicians. It is said that hospitals were usually furnished with the best furniture, they were clean and provided the best kind of treatment for patients.⁽⁵⁰⁾

In Fatimid Egypt, there was the Fatimid hospital of al-Fashshashīn and al-Saqtīyyīn. However, not much information is mentioned regarding the building of hospitals during the Fatimid period. Goitein mentions that this is due to the lack of interest of the Fatimid caliphs in charity institutions and that they were too "religious to try to take out of God's hand the care of human health".⁽⁵¹⁾ This is not convincing, especially that, as we will see in the coming chapter, Fatimid caliphs surrounded themselves with physicians and attracted a great number of them to their courts. As for the Ayyubid period, Ṣalāḥ al-Dīn al-ʿAyyūbī established al-Naṣīrī hospital or sometimes called al-Ṣalaḥī hospital. Al-Maqrīzī also mentions that Ṣalāḥ al-Dīn established another hospital in Alexandria in the year 577 A.H.⁽⁵²⁾

It should be noted that, in Egypt, the medical care of cases of acute illness was not usually carried out in hospitals. Such acute cases were usually treated in the patient's house. Moreover, not all Egyptians used the hospitals. It is observed that Egyptian Jews did not go to hospitals, despite the fact that Jewish physicians occupied

high positions as staff members of such hospitals. Christian physicians were also members of the hospitals' staff, but it is not clear whether Egyptian Christian patients did use the hospitals or not. As for the Muslims, it seems it was mostly the poor, who attended the hospitals.⁽⁵³⁾ From the above information, it is clear that hospitals in Egypt were only attended by the poor. The fact that Christians and Jews did not attend this institution, may be because they were not allowed to attend Islamic waqf endowed charitable institutions. They might have had their own endowed hospitals.

One could not speak of hospitals in medieval Egypt without mentioning the Maṣṣūrī hospital. This hospital was established during the Mamluk period, year 682 H., Abū'l-Malik Maṣṣūr b. Qalawūn. Despite the fact that the Mamluk period is not covered in this research, this hospital -being the best built and equipped medical institution in the Muslim world- should be mentioned to show the development of the medical practice in the medieval Muslim society. This hospital included a great medical library and a lecture room. It included a store room in which drugs were kept.

Besides the physicians and staff members, there were employees for cleaning the hospital and looking after the patients. There was also an equipped kitchen which provided healthy food. Each patient was given the amount of food that his state of health permitted. The furniture in this hospital, the bedding and clothing were so luxurious that they rivalled those in the palace of the caliph. Patients received much attention, and music and singers were brought in to entertain them. Al-Mansūrī hospital, besides being a center of medical treatment, included readers of the Qurān and religious teachers for teaching patients the Qurān and hadīths.⁽⁵⁴⁾

The medical treatment of patients in hospitals or houses, was mostly done by the use of drugs. Therefore, studying medicine in Islamic society could not be complete, unless the physician studied the different drugs effective against different diseases. The coming section will deal with the pharmaceutical practices in Medieval Islamic society and with those involved in dispensing drugs. In the Muslim world, a great knowledge of drugs manufactured from vegetables and minerals were known. The Arab speaking

people wrote regular pharmacopeias, which is an authoritative book containing a list of drugs and medicines and the lawful standard for their production.⁽⁵⁵⁾ They discovered many drugs such as senna, camphor, sandalwood, musk, nux, vomica, colocynth, nutmeg cassia and aconite. By the seventh/thirteenth century about three thousand drugs were reported to have been known.⁽⁵⁶⁾ They excelled in medicinal preparations, and antidotes, (tiryāq). In many cases, physicians prepared elaborate tiryāqs for caliphs and rich patrons.⁽⁵⁷⁾

There were three main classes involved in dispensing drugs in Medieval Islamic society:

1. The Sharrābīn: Sellers of liquid medications often prepared with syrup and honey.
2. The Attārīn: Perfumists and herbalists : Besides selling drugs, they used to sell also different kinds of spices to be used in cooking, cosmetics and medicines.
3. Qualified pharmacists: This group had great knowledge of simple and compound drugs, and they knew all the techniques of preparing and preserving them.⁽⁵⁸⁾

The above three classes were all responsible for preparing and dispensing drugs. Like the physicians, there were supervised by the muhtasib. Before giving a person a license to become a pharmacist, he was examined by the muhtasib. The muhtasib urged pharmacists to adhere to the code of ethics and the oath of religious commitments. It was among the first group of pharmacists (al-sharrabīn), that there were some of the worst violators of the hisba rules. Generally speaking, the pharmacists gave the muhtasib the hardest assignment. The inspection of drug sellers was more difficult than the inspection of physicians; this was because drugs have serious effects on human life. Also, the means of checking adulteration in preparing medical drugs were difficult to detect.⁽⁵⁹⁾ In each city there was a dean of pharmacists. In Fatimid Cairo, a Jew was the dean of the pharmacists of the country. He was called, Kuhīn al-ʿAtṭār. Kuhīn wrote the best treatise on pharmacy and called his book, Minhāj al-Dukkān Wa Dustūr al-ʿĀyān. This work was written in the year 1260 A.D., and it became the standard book for pharmacists. It was divided into twenty-five chapters, dealing with

different medicinal preparations and with the etiquette and practice of pharmaceutical work. This work is considered to be, "the best heritage of Arabic pharmacy".⁽⁶⁰⁾ and like other similar works, served as an indispensable guide for the physician. As will be seen from ibn Abi Usaybi'a's biographies, physicians composed books on pharmacology. Thus combining the two professions.

Finally, it is hoped that the information in this chapter gave the reader a general idea of medicine as it existed in Medieval Islamic society. It should be noted at this point that data on the history of the medical profession during medieval Islamic period is very difficult to gather, because of its scattered and uneven nature. This makes it all the more difficult for the researcher to provide systematic and thorough study of the profession over such a long historical period. What is intended from this historical survey of the medical institution is to provide some basic background information for my detailed study of ibn 'Abī Uṣaybi'a's work on Fatimid and Ayyubid physicians in the Egyptian and Syrian capitals.

NOTES

¹ See the introduction in Michael Dols, Medieval Islamic Medicine, (California, 1934).

² See the introduction in Muḥammad Zubayr Siddiqī, Studies in Arabic and Persian Medical Literature, (Calcutta, 1959).

³ Ibid., The Introduction

⁴ Dols, Medicine, The Introduction

⁵ Abu al-Wafā al-Ghunaymī al-Taftazānī, "al-Ilāqa bayn al-Falsafa wa'l ṭibb 'ind al-Muslimīn" in al-Tibb al-Islāmī, ed. by Dr. Abdu'l-Rahmān 'Abd'Allāh al-'Awadī, (Kuwait, 1981, pp. 76-85).

⁶ Dols, Medicine, p. 4.

⁷ Ibid., p. 6.

⁸ Al-Taftazānī, al-Tibb al-Islāmī, p. 79.

⁹ Khayrallah, Outline to Medicine, p. 45.

¹⁰ Siddiqī, Medical Literature, p. xii.

¹¹ Ibid., p. xiii.

¹² Mursī Muḥammad ʿArabī, Lamahāt ʿan al-Turāth al-Tibbī al-ʿArabī, (Alexandria, 1975), p. 13.

¹³ Dols, Medicine, p. 11.

¹⁴ Ibid., p. 11.

¹⁵ Ibid., p. 24.

¹⁶ Ibid., p. 24.

¹⁷ Hamarnah, Health Sciences, Vol. I, p. 194.

¹⁸ S.D. Goitein, A Mediterranean Society, Vol. II, (California, 1971), p. 246.

¹⁹ Dols., Medicine, p. 29.

²⁰ Ibid., pp. 27-28.

²¹ Ibid., p. 41.

²² Goitein., A Mediterranean Society, Vol. II, pp. 244-246.

²³ Hamarnah., Health Sciences, Vol. I, p. 77.

²⁴ ʿArabī, al-Turāth al-Tibbī, pp. 88-89.

²⁵ Dols, Medicine, pp. 36-37.

²⁶ Ibid., pp. 37-38.

²⁷ Ibid., p. 38.

²⁸ Khayrallah., Outline to Medicine, pp. 100-101.

²⁹ Dols, Medicine, p. 30.

³⁰ Ibid., p. 41.

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- ³¹ Goitein, A Mediterranean Society, Vol. II, p. 244.
- ³² Khayrallah, Outline to Medicine, pp. 60-61.
- ³³ 'Arabī, Al-Turāth Al-Tibbī, p. 67.
- ³⁴ Yahyā Sharīf, Tārīkh al-Tibb al-'Arabī, (Cairo), p. 53.
- ³⁵ Dols, Medicine, p. 31.
- ³⁶ Dols, Medicine, p. 31.
- ³⁷ Goitein, A Mediterranean Society, Vol. II, p. 258.
- ³⁸ Ibid., p. 258.
- ³⁹ Examples are shown in detail in the coming two chapters.
- ⁴⁰ Hamarnah, Health Sciences, Vol. I, p. 119.
- ⁴¹ Ibid., p. 119-120.
- ⁴² Dols., Medicine, p. 43.
- ⁴³ Hamarnah, Health Sciences, Vol. I, pp. 78-79.
- ⁴⁴ Ibid., p. 121.
- ⁴⁵ 'Abd al-Sattār Abu Ghaddā, "Fiqh al-Tibb w'Adabuhu" in al-Tibb al-Islāmī, pp. 554-558.
- ⁴⁶ 'Arabī, al-Turāth al-Tibbī, p. 67.
- ⁴⁷ Siddīqī, Medical Literature, p. xxiv.
- ⁴⁸ Goitein, A Mediterranean Society, p. 251.
- ⁴⁹ Khayrallah, Outline to Medicine, pp. 60-61.

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- ⁵⁰ Sharif, al-Tibb al-ʿArabī, p. 53.
- ⁵¹ Goitein, A Mediterranean Society, p. 251.
- ⁵² ʿArabī, al-Turāth al-Tibbī, p. 67.
- ⁵³ Dols, Medicine, p. 31.
- ⁵⁴ Hamarnah, Health Sciences, Vol. I, pp. 101-102.
- ⁵⁵ Khayrallah, Outline to Medicine, p. 148.
- ⁵⁶ Ibid., p. 150.
- ⁵⁷ Ibid., p. 150.
- ⁵⁸ Hamarnah, Health Sciences, Vol. I, pp. 119-120.
- ⁵⁹ Ibid., p. 119.
- ⁶⁰ Khayrallah, Outline to Medicine, p. 150.

CHAPTER THREE

THE USE OF 'UYŪN AL-'ANBĀ' IN EVALUATING THE RELIGIOUS, SOCIAL, POLITICAL AND ECONOMIC STATUS OF PHYSICIANS

Having provided a general idea of the medical profession as it existed in medieval Islamic society, I intend to analyze systematically and quantitatively the data included in the last two sections of 'ibn 'Abī Uṣaybi'a's work dealing with Egypt and Syria. Hopefully this would enable me to evaluate the status and contribution of those Egyptian and Syrian physicians listed in the work under consideration, who were living during the Fatimid and Ayyubid period. The two sections under consideration include the biographies of one hundred and seventeen physicians. However, I excluded six physicians from the Egyptian section, because they belong to the pre-Fatimid period, which gives me a sample of hundred and eleven physicians. Given the complexity and varied nature of information culled from these two sections, I intend to divide the data into two chapters: data on socio-economic

and political status of physicians, and data on the medical, scientific and professional practices of physicians. The former is the subject matter of this chapter which will include various kinds of background information on the physicians: religious, social, political and economic. When analyzed, this information will reveal the physicians' socio-economic status which are important to examine if we are to study their role in society. As for the medical data, these will be studied in detail in the following chapter.

(A) The Religious and Social Status of Physicians:

1. Religion:

Medicine in medieval Islamic society seems to have been a "cosmopolitan profession", open to all religions. It was not restricted only to Muslims, but included the protected communities of Christians and Jews, who played a major role in this field.⁽¹⁾ However, it seems that during the rule of the Fatimids a large number of non-Muslims converted to Islam thus leading to a drop in the number of Christian and Jewish physicians.⁽²⁾ Contrary to this view, Goitein tried

to show in his study of the Geniza documents, how the Jewish community played a major role in the medical profession during the middle ages. He further argues that a handbook written for the market police during the mid-seventh century A.H., rebuked the Muslims because most of the Egyptian towns had no Muslim physicians.⁽³⁾ Thus, an attempt will be made here to examine the religious background of our sample of one hundred and eleven physicians, to show whether the medical profession in medieval Muslim society was open to all, or confined only to Muslims. This is not an easy task however, since ibn 'Abī Uṣaybi'a was not always consistent in specifying the religion of all physicians included in his work.

Starting with our Egyptian physicians, out of fifty one physicians, ibn 'Abī Uṣaybi'a only specified the religious affiliation of twenty three. Fourteen were Jewish,⁽⁴⁾ eight were Christians⁽⁵⁾ and one was a convert from Christianity to Islam.⁽⁶⁾ As for the remaining twenty eight physicians, their religion was unspecified. However, through close examination of their biographical entries, I was able to deduce the religion of most of them. Here, the nomenclature

of the physicians and the religion of parents can be used as indicators of religious affiliation. For example nine physicians had Muslim names, and two were descendants of Muslim physicians:

1. Abū ʿAbdullāh Muḥammad b. Saʿīd al-Tamīmī⁽⁷⁾
2. ʿAmmār b. ʿAlī al-Mūsili⁽⁸⁾
3. ʿAlī b. Sulaymān⁽⁹⁾
4. Abū ʿAlī Muḥammad b. al-Haytham⁽¹⁰⁾
5. ʿAlī b. Riḍwān⁽¹¹⁾
6. Bilmuẓaffar Naṣr b. Maḥmūd b. al Muʿarrāf⁽¹²⁾
7. Abū ʿUmar Uthmān b. Hibatullāh b. Aḥmad b. ʿUqayl al-Qaysī known as Jamāl al-Dīn Abul'-Ḥawāfir⁽¹³⁾
8. Afḍal al-Dīn Abū ʿAbdullāh Muḥammad b. Namawī al-Khunjī⁽¹⁴⁾
9. Muḥammad ʿAbdullāh b. Aḥmad al-Māliqī al-Nabatī, known as Diyā' al-Dīn al-Bayṭār.⁽¹⁵⁾
10. Fath al-Dīn b. Jamāl al-Dīn.⁽¹⁶⁾
11. Shihāb al-Dīn b. Fath al-Dīn.⁽¹⁷⁾

Furthermore, the professional title also helped in finding out the religious affiliation of physicians. One physician, al-Mubāshir b. Fātik carries the title of amīr,⁽¹⁸⁾ and the 'umara were usually Muslims. Two

physicians, al-Shaykh al-Sadīd Abū Manṣūr ʿAbdullāh⁽¹⁹⁾ and al-Qāḍi Nafīs al-Dīn b. al-Zubayr⁽²⁰⁾ seem to be Muslim scholars, they were applying the Shariʿi law. Finally, there is ʿAs-ad al-Dīn Abū'l Ḥasan who can also be counted as a Muslim, because he is mentioned to be an expert in ʿulūm al-sharʿ.⁽²¹⁾ All the above data shows that fifteen out of the unspecified twenty eight physicians were Muslims.

Through close examination, we find that five out of these unspecified physicians seem to be Christians: Abū Saʿīd b. ʿAbī Sulaymān,⁽²²⁾ Abū Shākir b. Abī Sulaymān,⁽²³⁾ Abū Nasr b. ʿAbī Sulaymān,⁽²⁴⁾ Abū'l Faḍl b. ʿAbī Sulaymān⁽²⁵⁾ and ʿAbī'l Khayr b. ʿAbī Sulaymān, known by the name of Rāshid al-Dīn Abū Ḥalīqah.⁽²⁶⁾ These were five brothers, all the sons of Abū Sulaymān Dāwūd b. ʿAbī'l-Munā b. ʿAbī Fanah, a physician who was specified as being Christian in his biographical entry.⁽²⁷⁾ The same can be said about two Jewish physicians, Mubarak b. Salāma b. Raḥmūn⁽²⁸⁾ and Ibrāhīm b. Mūsā b. Maymūn⁽²⁹⁾ whose fathers were Jewish physicians as indicated by ibn ʿAbī Uṣaybiʿa. We still have six physicians whose religions are difficult to be deduced. These are: ibn al-ʿAyn al-Zarbī,⁽³⁰⁾ ʿAyūn b. ʿAyūn,⁽³¹⁾ Abū

Bishr Tabīb al -Uẓaymiyyah,⁽³²⁾ ibn Muqashshar,⁽³³⁾ Ishāq b. Yūnus⁽³⁴⁾ and Abū'l Barakāt al-Qudā'i.⁽³⁵⁾ Most of these names could have been borne by Jews, Christians or Muslims. Nevertheless, information included in the biographical entries can be sometimes misleading. A clear example of this is the case of ibn al-Ayn al-Zarbī. This physician was given the title Shaykh, yet shaykh here is not simply a Muslim religious title. In reading the biographical entries of ibn Abī Uṣaybi-a, one finds the title shaykh is given to a Jewish physician, al-Shaykh al-Sadīd Abī'l-Bayān al-Israilī.⁽³⁶⁾ It could be that this title was used by our author to signify old age or high status, not simply a religious status or profession. Finally, I intend to sum up all the above mentioned information in Table (1) to give the reader a clearer and more precise picture of the religious affiliation of Egyptian physicians in the Fatimid and Ayyubid periods.

Table (1)

The Religious Affiliation of Egyptian Physicians

Religion	Specified	Deduced	Total
Muslim	1	16	17
Jewish	14	2	16
Christian	8	5	13
Uncertain	--	--	5
Total			51

Based on the above table, it is clear that all three religions were represented more or less equally. One can fairly argue that the protected communities formed the bulk of the medical practitioners in Egypt during the Fatimid and Ayyubid periods. In addition, Christian and Jewish physicians seem to have also served as religious leaders of their communities. Mūsa ibn Maymūn, the famous Jewish physician during the Ayyubid period, possessed great knowledge of Jewish religious sciences and became leader of his community and was given the title ra'īs, (chief). After his death, his descendants headed the Jewish community for

over two hundred years.⁽³⁷⁾ This is an illustrious example of the unbroken succession of physicians serving as religious community leaders. An interesting case worth mentioning here is that of Musa ibn Maymūn. Ibn 'Abī Usaybi'a states that the latter was a Jew from al-Maghrib who converted to Islam and studied fiqh. When he came to Egypt, he apostatized and became leader of the Jewish community and served al-Sultān al-Nāṣir Ṣalāḥ al-Dīn⁽³⁸⁾. If this is true, how can an apostate become accepted in an Islamic society and serve a Muslim ruler like Ṣalāḥ al-Dīn? Especially that Islamic law decrees that any Muslim who renounces his religion should be subjected to the death penalty. Here, Goitein mentions that Muslims converting to Judaism in the Medieval Muslim society had to leave their country in order not to expose themselves to death.⁽³⁹⁾ As for Christian physicians, there is the example of Yūsuf al-Nasrānī⁽⁴⁰⁾ and Sa'īd b. al-Baṭriq,⁽⁴¹⁾ two famous physicians living during the Fatimid period, who were also religious leaders of their community. The former was the patriarch of Jerusalem, while the latter was the Patriarch of the Coptic Church. Given this close analysis of the religious information included in our small sample of fifty one

physicians, one can fairly argue that the fact that Jews and Christians formed the bulk of the medical profession in medieval Islamic Egypt might be because the medical profession was initially carried by local Jewish and Christian subjects.⁽⁴²⁾

In Syria, Jews and Christians seem to have also contributed to the development of the medical profession. However, their number was not as great as those in Egypt. Out of a sample of sixty physicians included in ibn 'Abī Usaybi'a's work, the religious affiliation of only seventeen physicians is specified. Four physicians: Sukrah al-Ḥalabī,⁽⁴³⁾ 'Afīf b. Sukrah,⁽⁴⁴⁾ Abu'l-Ḥajjāj al-Isrā'īlī⁽⁴⁵⁾ and 'Umrān al-Isrā'īlī⁽⁴⁶⁾ are specified as Jewish. Four physicians are specified as being Samaritans⁽⁴⁷⁾: Ṣadaqah al-Samirī,⁽⁴⁸⁾ Muḥadhdhab al-Dīn Yūsuf b. 'Abī Sa'īd al-Sāmīrī,⁽⁴⁹⁾ Muwaffaq al-Dīn Ya'qūb al-Samirī and Abu'l-Ḥasan b. 'Abī Sa'īd known as al-Sāhib Amīn al-Dawlah -a title which refers to a bureaucratic position.⁽⁵⁰⁾ Six physicians: al-Bayrūdī,⁽⁵¹⁾ Abū Maṣṣūr al-Naṣrānī,⁽⁵²⁾ Abu'l Najm al-Naṣrānī,⁽⁵³⁾ Abu'l-Faraj al-Naṣrānī,⁽⁵⁴⁾ Muwaffaq al-Dīn Ya'qūb b. Suqlāb⁽⁵⁵⁾ and Abu'l-Faraj b. al-Quff⁽⁵⁶⁾ are specified as

Christians. Only two are mentioned to be Muslims, these are: Jābir b. Manṣūr al-Sukkārī and his son Zāfir b. Jābir al-Sukkārī.⁽⁵⁷⁾ As for Muwaffaq al-Dīn b. Al-Muṭrān it is mentioned that he converted from Christianity to Islam.⁽⁵⁸⁾

We still have forty three physicians whose religion is unspecified. However, through close examination of their nomenclatures, I was able to deduce the religion of most of them. Twenty one physicians had Muslim names:

1. Abu'l-Naṣr Muḥammad al-Farābī⁽⁵⁹⁾
2. Abu'l-Ḥakam ʿUbaydallāh b. al-Muzaffar b. ʿAbdullāh al-Bahilī al-Andalusī⁽⁶⁰⁾
3. Abu'l-Majd Muḥammad b. Abi'l-Ḥakam⁽⁶¹⁾
4. Abu Jaʿfar ʿUmar b. ʿAlī b. al-Badhūkh⁽⁶²⁾
5. Ḥakim al-Zamān Abu'l-Faḍl ʿAbd al-Munʿim b. ʿUmar b. ʿAbdullāh b. Ḥasan al-Ghassānī al-Jiliānī⁽⁶³⁾
6. Najm al-Dīn Abu'l-Futūḥ Aḥmad b. Muḥammad b. al-Sirī b. al-Salāḥ⁽⁶⁴⁾
7. Abū Ḥafs ʿUmar known as Shihāb al-Dīn al-Suhrawardī⁽⁶⁵⁾
8. al-Sayyid Burhān al-Dīn Abu'l-Faḍl Sulaymān known as al-Sharīf al-Kaḥḥāl, (the fact that his name is preceeded by the title al-Sharīf al Sayyid may

- indicate that he is a descendant of the Prophet's family)⁽⁶⁶⁾
9. Zayn al-Dīn Sulaymān b. al-Mu'ayyid 'Alī al-Hāfizī⁽⁶⁷⁾
 10. Mu'ayyid al-Dīn Abu'l-Faḍl Muḥammad b. 'Abd al-Karīm b. 'Abd al-Rahmān al-Ḥarithī, Abu'l-Faḍl al-Muhandis⁽⁶⁸⁾
 11. Radiyy al-Dīn Abu'l-Ḥajjāj Yūsuf b. Ḥaydarah b. al-Ḥasan al-Rahbī⁽⁶⁹⁾
 12. Sharaf al-Dīn Abu'l-Ḥasan 'Alī b. Yūsuf b. Ḥaydarī al-Rahbī⁽⁷⁰⁾
 13. Jamāl al-Dīn 'Uthmān b. Yūsuf b. Ḥaydarah al-Rahbī⁽⁷¹⁾
 14. Abū Manṣūr al-Muzaffar b. 'Alī b. Nāṣir al-Qurashī al-Ḥimṣī⁽⁷²⁾
 15. Abū Manṣūr b. Abī'l-Faḍl b. 'Alī al-Sūrī⁽⁷³⁾
 16. Abu'l-Thanā Maḥmūd b. 'Umar b. Muḥammad b. Ibrāhīm b. al-Shaybānī known as ibn Raḡiqa⁽⁷⁴⁾
 17. Muhadhhab al-Dīn Abū Muḥammad 'Abd al-Rahīm b. 'Alī⁽⁷⁵⁾
 18. Abū'l-'Abbās Aḥmad b. Abī'l-Faḍl As'ad b. Hilwān known as Najm al-Dīn al-Munfākh⁽⁷⁶⁾
 19. Shams al-Dīn Muḥammad al-Kūlī⁽⁷⁷⁾

20. ʿImād al-Dīn Abū ʿAbdullāh Muḥammad b. al-Qādī al-Khaṭīb Taqīyy al-Dīn ʿAbbās b. Aḥmad, ʿImād al-Dīn al-Dinsirī.⁽⁷⁸⁾
21. Muḥadhdhab al-Dīn Aḥmad b. al-Ḥājib.⁽⁷⁹⁾

In addition to names, other kinds of information can help us in discovering the religion of our Syrian physicians: six physicians were either studying or teaching fiqh and ḥadīth: Abu'l-Ḥasan b. Hibatullāh al-Naqqāsh,⁽⁷⁹⁾ Shams al-Dīn al-Khusrushāhī,⁽⁸⁰⁾ Sayf al-Dīn al-Amīdī,⁽⁸¹⁾ Muwaffaq al-Dīn ʿAbd al-ʿAzīz,⁽⁸²⁾ Saʿd al-Dīn ʿAbd al-ʿAzīz,⁽⁸³⁾ and Muwaffaq al-Dīn al-Baghdādī.⁽⁸⁴⁾ Two physicians, Shams al-Dīn al-Khūwī⁽⁸⁵⁾ and Rāfiʿ al-Dīn al-Jīlī held the post of Qādis.⁽⁸⁶⁾ Also one physician, Badr al-Dīn al-Muẓaffar, was the son of the Qādi of Baʿalbak.⁽⁸⁷⁾ Two physicians were descendants of Arab tribes, Rāshīd al-Dīn ʿAlī b. Khalīfah, the paternal uncle of our author, belonged to al-Khazraj tribe and was a descendant of one of the Prophet's companions, Saʿd b. ʿUbāda.⁽⁸⁸⁾ ʿIzz al-Dīn al-Suwaydī belonged to al-ʿAws tribe and was a descendant of Saʿd b. Muʿādh, a companion from the ʿAnṣār.⁽⁸⁹⁾ Four physicians can be considered as sons or fathers of physicians whose

religion was specified in their entries: Mawhūb b. Zāfir and Jābir b. Zāfir are descendants of Jābir b. Manṣūr al-Sukkarī who is specified by ibn 'Abī Usaybi-a as being a Muslim;⁽⁹⁰⁾ Al-Sāhib Najm al-Dīn al-Labūdī is the son of Shams al-Dīn Muḥammad al-Labūdī whose name is indicated as a Muslim.⁽⁹¹⁾ Also, Muwaffaq al-Dīn al-Munfākh is the father of Najm al-Dīb. al-Munfākh, whose full name Abu'l-Abbās Aḥmad b. Abī'l-Faḍl indicates that he also was a Muslim.⁽⁹²⁾ Summing up all the above data, it is clear that out of the forty three unspecified physicians, thirty eight are found to be Muslims, and hence the Syrian sample, unlike the Egyptian, shows a predominance of Muslim physicians.

As for the remaining five physicians: Sadīd al-Dīn Abū Manṣūr is found to be Christian. He is the son of al-Ḥākim Muwaffaq al-Dīn Ya-qūb b. Suqlāb whose religion is specified by ibn 'Abī Usaybi-a as being Christian.⁽⁹³⁾ As for the other four physicians, all my attempts to deduce their religion failed. Not a single information included in their biographies could guide the reader to discover their religion. These four physicians are: 'Isā al-Ruqiyy,⁽⁹⁴⁾ Abu'l-Faḍl Ismā'il b. al-Waqqār,⁽⁹⁵⁾ Abū Zakariyyah Yaḥyā al-

Bayāsi,⁽⁹⁶⁾ and Muwaffaq al-Dīn ʿAbd al-Salām.⁽⁹⁷⁾ The last case seems to be somewhat confusing, since one would expect that names with the suffix of "al-Dīn" are Muslim names. Yet this is not always true. For example, there is the case of Muwaffaq al-Dīn Ya-qūb b. Suqlāb,⁽⁹⁸⁾ who was mentioned to be Christian and Muwaffaq al-Dīn b. Ya-qūb al-Samirī who, as clear from his name, is a Samirī.⁽⁹⁹⁾ Finally, I intend to include all the above mentioned information in Table (2) to give the reader a clearer picture of the religious affiliation of Syrian physicians.

Table (2)

The Religious Affiliation of Syrian Physicians

Religion	Specified	Deduced	Total
Muslim	3	38	41
Jewish	4	--	4
Christian	6	1	7
Samaritan	4	--	4
Unknown	--	--	4
Total			60

It is clear from Table (2) that unlike Egypt, Muslim physicians formed the bulk of the medical practice. Their number was much larger compared to the Jewish and Christian physicians. The fact that most of the medieval physicians in Syria were Muslims may be explained by the presence of the Crusades in a number of Syrian city states and from where Muslim intellectuals may have fled to the cities that were under the Muslim rule. Whether Muslim physicians were greater in number than non-Muslims or vice versa, what is really important is that the above quantitative analysis shows that the medical profession seems to have been open to all, but more so in Egypt than in Syria. Religion did not seem to have been an obstacle in the way of those practising the medical profession in medieval Islamic society. It is interesting to note that in examining the names of physicians in our Egyptian and Syrian samples, one can observe that Christian and Jewish physicians often adopted Arabic names which were used by Muslims. This may indicate that the religious minorities in both Egypt and Syria enjoyed a relative degree of cultural integration in Fatimid and Ayyubid Muslim society.

2. Place of Origin and Residence:

Physicians in medieval Muslim society were "the torchbearers of secular erudition... displacers of the Greeks and the heirs to a universal tradition which formed a spiritual brotherhood that transcended the barriers of religion, language and countries."¹⁰⁰ In the previous section, I attempted to show how the medical profession transcended the barriers of religion in Islamic society. Here, an attempt will also be made to examine whether it was the same regarding geographical boundaries. Whether physicians regarded themselves as part of Dar al-Islam as a whole, or confined themselves only to one geographical location. To answer this question, an attempt will be made to examine the places of origin and residence of physicians. The place of origin is known either from the geographical nisba, (the name of a physician indicating his place of origin), or from the place of birth which is specified in some biographical entries. A biographical entry may include more than one place nisba, if the physician was born in one place, but decided to reside in another.

Out of our Egyptian sample of fifty one physicians, ibn 'Abī Usaybi'a mentions the place of origin of twenty one only. On the basis of this number, one may conclude that the place of origin was not such an important piece of information to be included in studying the lives of physicians, and hence the physician's place of origin did not seem to have much effect on the status of a medical practitioner, or on his entrance in the medical profession. As for the twenty one physicians whose place of origin was mentioned by ibn 'Abī Usaybi'a, the geographical nisba of five physicians only were specified: 'Ammār al-Mūṣilī from Mūṣil;⁽¹⁰¹⁾ Ibn al-'Ayn al-Zarbī, from 'Ayn Zarbā in Asia Minor;⁽¹⁰²⁾ Mūsa ibn Maymūn al-Qurṭubī from Cordova in al-Andalus;⁽¹⁰³⁾ al-As'ad al-Maḥallī from al-Maḥalla in Egypt,⁽¹⁰⁴⁾ and finally Nafīs al-Dīn ibn al-Zubayr al-Kawlāmī from Kawlām in India.⁽¹⁰⁵⁾ As for the remaining sixteen cases, ibn 'Abī Usaybi'a mentioned their place of origin without mentioning a geographical nisba.⁽¹⁰⁶⁾ Eleven physicians originated from Egypt,⁽¹⁰⁷⁾ three from al-Quds,⁽¹⁰⁸⁾ one from al-Baṣra⁽¹⁰⁹⁾ and one from Damascus.⁽¹¹⁰⁾

We still have thirty physicians whose place of origin is not specified, and I was able to deduce the place of origin of nine of them: the place of origin of ʿĪsā b. al-Baṭrīq is Egypt because it is stated that his brother Saʿīd originated from Egypt.⁽¹¹¹⁾ Ibrāhīm b. Mūsā b. Maymūn's place of origin is Qurtuba, following his father al Raʾīs Mūsā b. Maymūn.⁽¹¹²⁾ The place of origin of Abū Saʿīd b. Abī Sulaymān, Abū Shākir b. Abī Sulaymān, Abū Naṣr b. Abī Sulaymān, Abu'l Faḍl b. Abī Sulaymān and Rāshid al-Dīn Abū Ḥalīqah, is al-Quds. They all follow their father Abū Sulaymān Abū Dāwūd b. Abī'l-Munā b. Abī Fanah whose place of origin is stated to be al-Quds.⁽¹¹³⁾ Finally, there is Fath al-Dīn b. Jamāl al-Dīn and Shihāb al-Dīn b. Fath al-Dīn whose place of origin is Damascus, following their father Jamāl al-Dīn Abu'l-Ḥawāfir.⁽¹¹⁴⁾ I intend to sum all the above information in Table (3) which will show clearly the place of origin of both the twenty one physicians and the nine physicians whose place of origin was deduced.

Table (3)

Place of Origin of Egyptian Physicians

No.	Name of Physician	Place of Origin	
		Country	City
1.	Sa'id b. al-Baṭriq	Egypt	al-Fustat
2.	Isā b. al-Baṭriq	Egypt	--
3.	Sahlān b. Kisān	Egypt	--
4.	Al-Ḥaqīr al-Nāfi'	Egypt	--
5.	Al-Mubāshir b. Fātik	Egypt	--
6.	Alī b. Riḍwān	Egypt	Giza
7.	Salāma b. Raḥmūn	Egypt	--
8.	Mubārak b. Salāma b. Raḥmūn	Egypt	--
9.	Ibn Jumay'	Egypt	al-Fustat
10.	Al-Shaykh al-Sadīd Abī'l Bayān	Egypt	al-Qahira
11.	Muḥadhdhab al-Dīn Abū Ḥalīqah	Egypt	al-Qahira
12.	As'ad al-Dīn Abī'l-Ḥasan	Egypt	--
13.	Al-As'ad al-Maḥallī	Egypt	Mahalla
14.	Al-Tamīmī	Palestine	al-Quds
15.	Abū Sa'id b. Abī Sulaymān	Palestine	al-Quds
16.	Abū Shākir b. Abī Sulaymān	Palestine	al-Quds
17.	Abū Naṣr b. Abī Sulaymān	Palestine	al-Quds
18.	Abu'l Fadl b. Abī Sulaymān	Palestine	al-Quds
19.	Rāshid al-Dīn Abū Ḥalīqah	Palestine	al-Quds
20.	Abū Sulaymān b. Abī'l-Munā Fanah	Palestine	al-Quds

Table (3) - Continued

21.	Rāshid al-Dīn Abū Sa'id	Palestine	al-Quds
22.	Jamāl al-Dīn Abu'l-Hawāfir	Syria	Dimishq
23.	Fath al-Dīn b. Jamāl al-Dīn	Syria	Dimishq
24.	Shihāb al-Dīn b. Fath al-Dīn	Syria	Dimishq
25.	Ibn al-Haytham	Iraq	al-Baṣra
26.	ʿAmmar b. ʿAlī al-Mūsili	Iraq	al-Mūṣil
27.	Mūsā b. Maymūn al-Qurṭubī	al-Andalus	Qurṭuba
28.	Ibrāhīm b. Mūsā b. Maymūn	al-Andalus	Qurṭuba
29.	Ibn al-ʿAyn al-Zarbī	Asia Minor	ʿAyn Zarbā
30.	Nafīs al-Dīn b. al-Zubayr al-Kawlāmī	India	Kawlām

The place of residence indicates that the physician spent at least part of his life in one specific locality. The Egyptian sample shows that the fifty one physicians spent a long period of time in the capital and therefore acquired the status of a resident in the Egyptian capital. However, some of them moved from Egypt to other regions in Dār al-Islām. Fifteen out of the fifty-one physicians seem to have travelled to other regions outside Egypt. For example, Yūsuf al-Naṣrānī lived first in Egypt then left to al-Quds where he resided for three years as Patriarch of

Bayt al-Maqdis.⁽¹¹⁵⁾ -Alī ibn Sulaymān, resided in both Cairo and Halab.⁽¹¹⁶⁾ Ibn al-Ayn al-Zarbī resided in both Baghdad and Egypt.⁽¹¹⁷⁾ Mūsā ibn Maymūn resided first in al-Maghrib then came to Egypt.⁽¹¹⁸⁾ Al-Asʿad al-Mahallī resided for a period of time in Cairo then left to Damascus then back again to Cairo.⁽¹¹⁹⁾ Fath al-Dīn Jamāl al-Dīn Abī al-Ḥawāfir spent the early years of his life in Damascus then moved to Egypt.⁽¹²⁰⁾ The same also applies to Abū Sulaymān Dāwūd ibn Abī al-Munā ibn Abī Fanah who spent his early years in al-Quds then moved to reside in Egypt.⁽¹²¹⁾ Abū Saʿīd ibn Abī Sulaymān, resided in different Muslim cities in the Fertile Crescent: Al-Karak, Ga-bār, al-Rūḥa, Damascus and then he moved to Egypt where he finally settled there.⁽¹²²⁾ Abū Shākir ibn Sulaymān lived in the same cities as Abū Saʿīd.⁽¹²³⁾ Abū Naṣr ibn Abī Sulaymān and Abū al-Faḍl ibn Abī Sulaymān both resided in al-Karak and then in Egypt.⁽¹²⁴⁾ Rāshid al-Dīn Abū Ḥalīqah, resided in al-Rūḥa, Damascus and Cairo.⁽¹²⁵⁾ Rāshid al-Dīn Abū Saʿīd spent part of his life in Damascus, then moved to Cairo and finally went back to reside in Damascus.⁽¹²⁶⁾ Asʿad al-Dīn Abū al-Ḥasan's place of residence was Egypt, but he spent part of his life in Yaman and Damascus.⁽¹²⁷⁾ Finally, Diyā' al-Dīn al-Bayṭār resided in

different countries, Bilād al-Rūm, al-Maghrib, Damascus and then he finally moved to reside in Cairo.⁽¹²⁹⁾

The above survey shows how the physicians were moving freely between the Egyptian and Syrian cities, reflecting closer political and cultural links between the Syrian and Egyptian regions. It is only in a few cases that physicians moved to more distant regions and visited other countries in Dār al-Islām such as Yaman, Iraq and al-Maghrib. Only in the case of the famous physician, Diyā' al-Dīn al Bayṭār that we see a physician moving to distant regions like Bilād al-Rūm.

As for the remaining thirty six physicians in our Egyptian sample, there was no mentioning of their geographical movement or residency in regions other than Egypt.⁽¹²⁹⁾ This could mean three things: that ibn 'Abī Usaybi'a, for some reason or another, neglected to mention their geographical movement, that he did not have such data on hand, or that they lived in Egypt all their lives. However, I am more inclined to think that ibn 'Abī Uṣaybi'a did not have this kind of information and that they also,

like other Muslim intellectuals and scholars, moved to reside in different places of the Fatimid and Ayyubid region, or perhaps in the more distant parts of Dar al-Islam.

Our sample shows that most of the Egyptian physicians who did leave their country, travelled to Syria. Inside Egypt, there seems to be a tendency among physicians to reside in major cities more than in villages and towns. In twenty eight cases, ibn 'Abī Uṣaybi'a mentioned the cities in which physicians resided inside Egypt. Twenty physicians out of the twenty eight lived in Cairo, the capital of the Fatimid caliphate.⁽¹³⁰⁾ Three lived in al-Fuṣṭāṭ,⁽¹³¹⁾ one lived in both Cairo and al-Fuṣṭāṭ,⁽¹³²⁾ one lived in both al-Fuṣṭāṭ and Alexandria⁽¹³³⁾ and one lived in Miṣr al-Qadima.⁽¹³⁴⁾ There is also the two interesting cases of al-As'ad al-Maḥallī and 'Alī b. Riḍwān, who both left their small towns and went to reside in major cities. The former left the town of Maḥalla and went to live in Cairo,⁽¹³⁵⁾ while the latter left Giza and went to reside in the city of Miṣr al-Qadima which was named by ibn Abī Uṣaybi'a "the city of Miṣr"⁽¹³⁶⁾. Most probably the reason why physicians in our

sample seem to be concentrated in major cities is because ibn 'Abī Uṣaybi'a was more interested to mention well-known physicians in the capital who were often connected to the ruling elite and/or who formed part of their entourage. But this will be discussed in more detail later.

In our Syrian sample, the place of origin is mentioned more frequently than in the Egyptian sample. Out of sixty physicians under consideration, the place of origin of forty six physicians can be known either from the geographical nisba or the specified place of birth. Table (4) shows in detail the place of origin of these physicians.

Table (4)

Place of Origin of Syrian Physicians

No.	Name of Physician	Place of Origin	
		Country	City
1.	Al-Bayrūdī	Syria	Bayrūd
2.	Muwaffaq al-Dīn b. al-Mutrān	Syria	Damascus
3.	Muhadhhab al-Dīn b. al-Hājib	Syria	Damascus
4.	Abu'l-Najm al-Naṣrānī	Syria	Shafa

Table (4) - Continued

5.	Shams al-Dīn al-Labūdī	Syria	Ḥalab
6.	Najm al-Dīn al-Labūdī	Syria	Ḥalab
7.	Zayn al-Dīn al-Ḥāfizī	Syria	ʿAqraba in Damascus
8.	Abu'l-Faḍl al-Muhandis	Syria	Damascus
9.	Ṣaʿd al-Dīn ʿAbd al-ʿAzīz	Syria	Damascus
10.	ʿUmrān al-Isrāʾilī	Syria	Damascus
11.	Rāshīd al-Dīn al-Sūrī	Syria	Sur
12.	Sadīd al-Dīn b. Raḡīqa	Syria	Ḥini
13.	Muhadhdhab al-Dīn ʿAbd al-Rahīm	Syria	Damascus
14.	Ibn Qaḍī Baʿalbak	Syria	Baʿalbak
15.	Muwaffaq al-Dīn ʿAbd al-Salām	Syria	Ḥama
16.	Najm al-Dīn al-Munfākh	Syria	Damascus
17.	ʿImād al-Dīn al-Dinisirī	Syria	Dinisir
18.	Muwaffaq al-Dīn al-Sāmīri	Syria	Damascus
19.	ʿIzz al-Dīn al-Suwaydī	Syria	al-Suwaydā
20.	Abu'l-Faraj b. al-Quff	Syria	al-Karak
21.	Sukrah al-Ḥalabī	Syria	Ḥalab
22.	ʿAfīf b. Sukrah	Syria	Ḥalab
23.	Muwaffaq al-Dīb. al-Munfākh	Syria	al-Mʿazah
24.	Abī'l-Faḍl b. Abī'l-Waqqār	Syria	al-Maʿazzah
25.	Kamāl al-Dīn al-Ḥimṣy	Syria	Ḥimṣ

Table (4) - Continued

26.	Abu'l-Naṣr al-Farābī	Khurasan	Farab
27.	Ibn al-Salāḥ	Persia	Hamadan
28.	Shihāb al-Dīn al-Suhrawardī	Persia	Suhraward
29.	Shams al-Dīn al-Khūwī	Adharbaijan	al-Khūwī
30.	Rāfi' al-Dīn al-Jilī	Persia	al-Jilān
31.	Shams al-Dīn al-Khusrushāhī	Persia	Khusrushah
32.	Fakhr al-Dīn al-Sa'ātī	Khurasan	--
33.	Jābir al-Sukkari	Iraq	al-Mūṣil
34.	Zāfir b. Jābir al-Sukkari	Iraq	al-Mūṣil
35.	Muhadhdhab al-Dīn ibn al-Naqqāsh	Iraq	Baghdad
36.	Raḍiyy al-Dīn al-Raḥbī	Iraq	Raḥba
37.	Sharaf al-Dīn al-Raḥbī	Iraq	Raḥba
38.	Jamāl al-Dīn al-Raḥbī	Iraq	Raḥba
39.	Muwaffaq al-Dīn al-Baghdādī	Iraq	Baghdad
40.	Ibn al-Badhūkh	al-Maghrib	--
41.	Ḥākim al-Zamān al-Jiliānī	al-Andalus	--
42.	Abu'l-Hajjāj al-Isrā'īlī	al-Maghrib	Fās
43.	Shams al-Dīn al-Kūlī	al-Andalus	--
44.	Yahyā al-Biyyāsī	al-Andalus	--
45.	Al-Sharīf al-Kaḥḥāl	Egypt	--
46.	Rāshid al-Dīn 'Alī b. Khalīfah Ar.	Peninsula	Madīna

It is clear from the table above that Syria was the place of origin of most physicians. Twenty five out of the forty six physicians originated from different towns in Syria.⁽¹³⁹⁾ Persia was the place of origin of seven physicians,⁽¹⁴⁰⁾ and Iraq was the place of origin of seven physicians.⁽¹⁴¹⁾ As for al-Andalus and al-Maghrib, they were the places of origin of five physicians.⁽¹⁴²⁾ Only one physician originated from al-Madina⁽¹⁴³⁾ and one from Egypt. The fact that only one physician originated from Egypt might be due to the fact that Egyptian physicians preferred to remain in the Egyptian capital, the seat of power of both Ayyubids and Fatimids. Finally, regarding the remaining fifteen physicians, there was no mentioning of their place of origin except in two cases, in which I was able to discover their place of origin. These are: Mawhūb b. Zāfir and Jābir b. Mawhūb whose places of origin is al-Mūsīl following their father and grandfather, Jābir and Zāfir al-Sukkārī.⁽¹⁴⁴⁾

As for the place of residence, twenty seven physicians out of our sample of sixty travelled to other regions and resided in different countries other than Syria. Eleven

physicians travelled to Iraq and resided there for a period of time. These are: Abu'l-Naṣr al-Farābī,⁽¹⁴⁵⁾ al-Bayrūdī,⁽¹⁴⁶⁾ Jābir b. Maṣṣūr,⁽¹⁴⁷⁾ Zāfir al-Sukkārī,⁽¹⁴⁸⁾ Abu'l-Faḍl b. Abī'l-Waqqār,⁽¹⁴⁹⁾ ibn al-Salāh,⁽¹⁵⁰⁾ Raḍiyy al-Dīn al-Raḥbī,⁽¹⁵¹⁾ Sadaqah al-Samirī,⁽¹⁵²⁾ ibn al-Muṭrān,⁽¹⁵³⁾ and Muhadhhab al-Dīn b. al-Ḥājib.⁽¹⁵⁴⁾ These two last physicians travelled to other countries besides Iraq, the former went to Bilād al-Rūm, Iraq and then Damascus, while the latter travelled to al-Mūṣil, Tus, Anbar in Persia, Damascus, Ḥama, Egypt then went back to reside in Ḥama. Twelve physicians travelled to Egypt: Yaḥyā al-Bayyāsī,⁽¹⁵⁵⁾ al-Sharīf al-Kaḥḥāl,⁽¹⁵⁶⁾ Najm al-Dīn al-Labudī,⁽¹⁵⁷⁾ Abu'l-Faḍl al-Muhandis,⁽¹⁵⁸⁾ Abu'l-Hajja al-Isrā'īlī,⁽¹⁵⁹⁾ Rāshid al-Dīn al-Sūrī,⁽¹⁶⁰⁾ al-Ṣāhib Amīn al-Dawlah,⁽¹⁶¹⁾ ʿAbd al-Raḥīm b. ʿAlī,⁽¹⁶²⁾ Rāshid al-Dīn b. Abī Khalifah,⁽¹⁶³⁾ Muwaffaq al-Dīn ʿAbd al-Salam,⁽¹⁶⁴⁾ ʿImād al-Dīn al-Dinisīrī,⁽¹⁶⁵⁾ and Muwaffaq al-Dīn al-Baghdādī.⁽¹⁶⁶⁾ One physician, Abu'l-Faḍl b. Abī'l-Naqqāsh travelled to both Egypt and Iraq.⁽¹⁶⁷⁾ Two physicians: Shams al-Dīn al-Labūdī⁽¹⁶⁸⁾ and Saʿd al-Dīn ʿAbd al-ʿAzīz,⁽¹⁶⁹⁾ travelled to Persia and the Eastern part of the Islamic empire. Only one physician, Abu'l-Faraj al-Naṣrānī, travelled to Anatolia and resided in a city called Samisat.⁽¹⁷⁰⁾ As for the remaining

thirty three physicians, there is no indication that they travelled outside Syria.⁽¹⁷¹⁾

Like in Egypt, there seems to be a tendency among Syrian physicians to reside in the major cities. It was in Damascus that most physicians lived. Forty three physicians spent most or part of their life there.⁽¹⁷²⁾ Halab comes second in importance, eleven physicians resided there.⁽¹⁷³⁾ As for small cities and towns, very few physicians seem to have resided, or travelled there. Four physicians only spent part of their life in Ḥama⁽¹⁷⁴⁾; three in al-Karak, two in Ba'albak, two in Ḥims,⁽¹⁷⁵⁾ one in Ja'bar,⁽¹⁷⁶⁾ one in al-Quds,⁽¹⁷⁸⁾ one went to both Ḥinī and Khilāt⁽¹⁷⁹⁾ and one resided in Ajlūn and Sarkhad in Syria.⁽¹⁸⁰⁾ Again, one can attribute the reason for the concentration of physicians in major cities to ibn 'Abī Uṣaybi'a's emphasis on physicians who were connected to rulers and governors, or famous physicians in the various urban centres. From all the above, it is clear that not many of the Syrian physicians travelled outside Syria. Even those who travelled did not go beyond the two neighbouring regions, Egypt and Iraq, and in some cases, Persia. Based on the information included in ibn Abi

Usaybi-a's work, it can be concluded that, contrary to what Goitein argued, the medical profession during the period under study was to a great extent restricted by the geographical boundaries of the Fatimid and Ayyubid states and confined to certain localities. It was only in a few cases that it transcended the barriers of these regions. I believe that this might be attributed to the fact that both Egypt and Syria were the two major regions under the rule of the Fatimids and Ayyubids. Given that they were the major centres of culture and science, our physicians were perhaps not tempted to leave these cultural centres and search for science elsewhere. Furthermore, it should be noted that the period under consideration is the same period that witnessed the Mongol invasions which started in the year 1220 and had devastated the eastern part of the Islamic empire. This might be one of the reasons why physicians in Syria were not very much tempted to travel outside their region.

3. Family Background:

In this section, I intend to study the information concerning the family background of physicians, in order to

know more about their social status and to find out to what extent this influenced their entrance into the medical profession. In addition, I intend to examine the famous families of physicians who were frequently mentioned in the biographical entries to show how the profession was sometimes passed on from father to son. Starting with Egypt, Table (5) will show statistically the different family backgrounds of our fifty one physicians.

Table (5)

Family Background of Egyptian Physicians

Number of Physicians	Family Background
11	Families of Doctors
1	Father - Baker
39	Background Unspecified

As clear from the table above, ibn 'Abi Usaybi'a did not provide any data on the family background of thirty nine physicians. This makes it more difficult for the researcher to reach any general conclusion or to provide the reader with a precise picture of the family background of

physicians. Nevertheless, on the basis of the specified twelve physicians, I found that eleven physicians belonged to families in which some family members were practising medicine. There are several examples of fathers passing the medical profession to sons, grandsons, and of pbrothersracting the same profession. The two sons of Mūsā b. al-ʿAzār, Ishaq, Ismaʿil as well as his grandson Ishāq, were all physicians.⁽¹⁸¹⁾ The biographies of the two physicians Saʿīd b. al-Baṭrīq and ʿIsa b. al-Baṭrīq are good examples of two brothers who were famous physicians.⁽¹⁸²⁾ While the biographies of the two physicians Salāma b. Raḥmūn and Mubārak b. Salāma b. Raḥmūn, show clearly the inheritance of the medical profession from father to son.⁽¹⁸³⁾ Al-Tamīmī inherited the medical profession from his grandfather Saʿīd al-Tamīmī who was a well known physician.⁽¹⁸⁴⁾ Al-Shaykh al-Sadīd Abū Manṣūr Abū ʿAbdullāh inherited the medical profession from his father, a famous physician working in the service of the Fatimid caliph.⁽¹⁸⁵⁾ Farag, the son of the physician and oculist Abū'l-Faḍāil b. al-Naqīd, inherited from his father the medical profession and specialized in the same field of eye disease.⁽¹⁸⁶⁾ Abū'l-Barakāt b. Shaʿyā passed down the medical profession to his

son Sa'id al-Dawlah Abu'l-Fakhr.⁽¹⁸⁷⁾ A good example of an unbroken succession of medical practitioner is the case of Jamāl al-Dīn Abu'l-Ḥawāfir, whose son Fath al-Dīn and his grandson Shihāb al-Dīn became physicians as well.⁽¹⁸⁸⁾ In addition, Ibrāhīm the son of the famous Jewish physician Mūsā b. Maymūn also inherited the same profession of his father.⁽¹⁸⁹⁾ Also in the biography of As'ad al-Dīn Abu'l-Ḥasan, it is clearly stated that his father was a physician.⁽¹⁹⁰⁾ Finally, the best example of a family of doctors is that of Abū Sulaymān Dawūd b. Abī al-Munā b. Abī Fanah. One finds the father, the four sons, the grandson and the great grandson all practising medicine.⁽¹⁹¹⁾ Unlike all the previous examples, only one physician, 'Alī b. Ridwān belonged to a family in which the father was a baker showing how it was still possible for a person coming from a non-medical background to become a famous physician.⁽¹⁹²⁾

Regarding the thirty nine physicians whose family background was not specified, it could be argued that our author was only interested in specifying data concerning family members who were practising medicine. Ibn 'Abī Uṣaybi'a provided the reader with little information

specifying the social life of physicians.⁽¹⁹³⁾ Only in very few cases does our biographer include the names of family members who were not related to the medical profession. Yet the mentioning of these members does not tell us much about patterns of social relations among the family members of physicians. For example, our author mentions the name of a third son of Mūsā b. al-Azār, here, it is unclear whether this son was a physician or not, but he may have been included in the entry because he converted to Islam.⁽¹⁹⁴⁾ Also in the biographical entry of Sa'īd b. al-Baṭrīq it is mentioned that one of his in-laws by the name of Yaḥyā b. Sa'īd b. Yaḥyā commented on one of Sa'īd's medical books, showing that families of physicians may have intermarried.⁽¹⁹⁵⁾ Finally, in the case of Abu'l-Ḥasan Sahlān b. ʿUthmān, ibn ʿAbī Uṣaybiʿa mentions that he was buried near the tomb of his brother Kisān b. Uthmān b. Kisān. The relation of this brother Kisān to the medical profession is unclear. Based on ibn ʿAbī Uṣaybiʿa's data, female members in the families of physicians did not seem to follow the medical profession of their fathers. Only in two cases I found mention of female members in the biographical entries of physicians, but they did not seem to practise medicine.

The first case is the wife of the physician al-Mubāshir b. Fātik. This woman is said to have belonged to a great family, yet she was so upset because her husband was very much taken by his medical studies, that she threw all his books in a water pool after his death.⁽¹⁹⁶⁾ The second case is that of the mother of the physician al-Qāḍī Nafīs al-Dīn, here ibn ʿAbī Uṣaybi-a states that this physician was related to the family of the famous Egyptian poet, ibn al-Zubayr, through his mother.⁽¹⁹⁷⁾ In these three cases of intermarriage, we see one physician marrying into a family of physicians, another marrying into a well-known family, and in the third case the physician marries into a famous family of intellectuals. Despite the scarcity of our data, this may demonstrate that physicians were careful to protect or improve their social status through marriage relations.

In Syria, the family background of physicians will be shown statistically in Table (6).

Table (6)

Family Background of Syrian Physicians

No. of Physicians	Family Background
12	Families of Doctors
8	Families of non-medical background:
	1 Father: Army Leader
	1 Father: Fallah
	1 Brother: Poet
	1 Father + Uncle Scholars of <u>fiqh</u> and <u>hadith</u>
	1 Brother: Linguistic Scholar
	1 Father: Merchant
	1 Father Judge
	1 Brother Judge
40	Family background not mentioned
Total	60

As clear from the above table, here also ibn 'Abi Uṣaybi'a specified the family background of a small number of physicians. He specifies the family background of twenty out of sixty physicians only, which is still more than he specified for the Egyptian physicians. Twelve physicians only belonged to families in which sons followed their fathers' practice. There are two examples representing the unbroken succession of medical men, where one finds three or

four generations of physicians in one family. The first is the family of Jābir b. Maṣṣūr al-Sukkārī, whose son Zāfir, the grandson Mawḥūb and the great grandson Jābir, all practise the medical profession.⁽¹⁹⁸⁾ The second example is the family of Raḍiyy al-Dīn al-Raḥbī, whose son Sharaf al-Dīn and his grandson Jamāl al-Dīn were physicians.⁽¹⁹⁹⁾ There are other examples of sons inheriting the medical profession from their fathers: Abu'l-Majd b. Abu'l-Ḥakam who followed his father Abu'l-Ḥakam al-Muẓaffar in the medical practice;⁽²⁰⁰⁾ Ḥakim al-Zamān al-Jiliānī, whose only son practised the medical profession after him;⁽²⁰¹⁾ Muwaffaq al-Dīn ʿAbd al-ʿAzīz who passed down the medical profession to his son Saʿd al-Dīn ʿAbd al-ʿAzīz;⁽²⁰²⁾ Muwaffaq al-Dīn Abu Yaʿqūb, whose son Saḍīd al-Dīn Abu Maṣṣūr also followed him in the medical practice.⁽²⁰³⁾ In addition, it is mentioned in the biographical entry of ʿAfīf b. Sukrah that most of his children and relatives practised medicine.⁽²⁰⁴⁾ In the biography of Muwaffaq al-Dīn ibn al-Muṭṭarān, it is stated that his father was a physician and that he had two brothers who also practised medicine.⁽²⁰⁵⁾ The sons of Abu'l-Faraj al-Naṣrānī also worked as physicians.⁽²⁰⁶⁾ Muhaddhab al-Dīn ʿAbd al-Raḥīm b. ʿAlī belonged to a family in which

the father and brother were oculists.⁽²⁰⁷⁾ Furthermore, physicians inherited the medical profession not only from their father, but in some cases from their uncles, as in the case of al-Ṣahib Amīn al-Dawlah who inherited the medical profession from his uncle Muhadhhab al-Dīn Yūsuf.⁽²⁰⁸⁾ Finally, there is the interesting case of Rāshid al-Dīn -Alī b. Khalīfah, the uncle of our biographer. Through reading the biography of Rāshid al-Dīn, one discovers that our biographer himself comes from a family of physicians. His grandfather, father and uncle were all medical practitioners.⁽²⁰⁹⁾

Unlike the Egyptian sample, ibn 'Abī Usaybi'a included in the biographical entries of Syrian physicians more information concerning some of the family members of the physicians who were not necessarily related to the medical profession. As shown in Table (8), physicians also came from families of non-medical background. There is Abu'l Hasan al-Farābī's father who was an army leader, having no connection to medicine.⁽²¹⁰⁾ Abu'l-Najm al-Naṣrānī's father was a peasant (fallah). This is one of the few examples in the sample under study showing that having rural background

did not constitute an obstacle in gaining a medical education.⁽²¹¹⁾ In the case of Fakhr al-Dīn al-Sā'atī, it is stated that his brother was a poet.⁽²¹²⁾ As for Muwaffaq al-Dīn 'Abd al-Laṭīf al-Baghdādī, his father and uncle were both religious scholars.⁽²¹³⁾ In the case of Sadīd al-Dīn b. Raḡīqa, there is mentioning that his brother Mu'īn al-Dīn was an expert in the Arabic language.⁽²¹⁴⁾ 'Izz al-Dīn al-Suwaydī's father was a merchant; Najm al-Dīn al-Munfākh's brother was a judge.⁽²¹⁵⁾ As for the case of ibn Qaḍī Ba'albak, it is clear from his name that his father was the judge of Ba'albak.⁽²¹⁶⁾ Based on the few examples specified above, one can conclude that physicians came mostly from an intellectual background of: physicians, religious scholars, linguists and poets. In fewer cases, we have physicians coming from a military, merchant or rural background. These cases, however, show that the medical profession was not exclusively monopolized by families of physicians or intellectuals.

Like in Egypt, female members were not expected to follow in the footsteps of their fathers in practising medicine. Only in five cases of the Syrian sample does ibn

'Abī Uṣaybi'a include information concerning family relations, or female members in the entries of physicians. First, it is mentioned in the biographical entry of Muḥadhdhab al-Dīn b. al-Naqqāsh that he did not get married.⁽²¹⁷⁾ Second, in the biography of Aḥmad b. al-Ḥājib, it is said that he was buried near the tomb of his mother and father.⁽²¹⁸⁾ The reason for mentioning such a detail as the place of burial of a physician is unclear to me. Third, in the case of Muwaffaq al-Dīn b. al-Muṭrān, his wife and sisters were mentioned in his biographical entry, because ibn al-Muṭrān got married to one of al-Sultān Ṣalāḥ al-Dīn's slave girls. As for his sisters, it is said that they had inherited some of his books but lost most of them.⁽²¹⁹⁾ Fourth, on Zayn al-Dīn al-Ḥafizī, it is mentioned that he was married to the daughter of the chief of Ḥalab.⁽²²⁰⁾ These two last cases reflect the close connection between physicians and the political elite in that society, which will be discussed in more detail in a coming section. Finally, there is the case of Najm al-Dīn al-Munfākh, in whose biography it is said that his mother was a scientist. This is the only time in our Egyptian and Syrian samples in

'Abī Uṣaybi'a include information concerning family relations, or female members in the entries of physicians. First, it is mentioned in the biographical entry of Muḥadhdhab al-Dīn b. al-Naqqāsh that he did not get married.⁽²¹⁷⁾ Second, in the biography of Aḥmad b. al-Ḥājib, it is said that he was buried near the tomb of his mother and father.⁽²¹⁸⁾ The reason for mentioning such a detail as the place of burial of a physician is unclear to me. Third, in the case of Muwaffaq al-Dīn b. al-Muṭrān, his wife and sisters were mentioned in his biographical entry, because ibn al-Muṭrān got married to one of al-Sultān Ṣalāḥ al-Dīn's slave girls. As for his sisters, it is said that they had inherited some of his books but lost most of them.⁽²¹⁹⁾ Fourth, on Zayn al-Dīn al-Ḥafizī, it is mentioned that he was married to the daughter of the chief of Ḥalab.⁽²²⁰⁾ These two last cases reflect the close connection between physicians and the political elite in that society, which will be discussed in more detail in a coming section. Finally, there is the case of Najm al-Dīn al-Munfākh, in whose biography it is said that his mother was a scientist. This is the only time in our Egyptian and Syrian samples in

which a woman is mentioned to have had any scientific endeavors.

After analyzing the information on the families of physicians in both Egypt and Syria, we can deduce the following. First, many physicians followed in their fathers' footsteps. Families of doctors were frequently found in Muslim medieval society as in modern society, where one usually finds the son of a physician adopting the vocation of his father.⁽²²¹⁾ Second, ibn 'Abī Uṣaybi'a had no interest in mentioning family members who did not practise medicine, except for those who excelled in another field such as poetry, literature, religious or legal studies. This is unlike the other biographers who had more interest in collecting information on the families of scholars, marriage, divorce or number of children, etc.⁽²²²⁾ Third, there is no mentioning of a woman practising medicine. This is rather surprising since in other sources, such as Tarikh al-Tibb al-'Arabi of Yahyā Sharīf and Outline to Arabic Contribution to Medicine of A. Khayrallah, women are mentioned to have practised medicine.⁽²²³⁾ This may be attributed to ibn 'Abī Uṣaybi'a's bias, since our biographer

seems to have been more interested in mentioning physicians connected to the power structure. It seems that women who did practise medicine were known to have been from a lower/middle social status, and were not closely tied to the higher political classes. In the rare cases when ibn 'Abī Uṣaybi'a wrote about women, he did so in a negative sense. There are the cases of the wife of al-Mubāshir b. Fātik who threw all his books and sources in a water pool, and the sisters of Muwaffaq al-Dīn b. al-Muṭrān who inherited a great part of his works but lost them. Women in the work of ibn 'Abī Uṣaybi'a appear as if they had no interest in science and did not care for the preservation of culture and scientific production. It is only in the case of Najm al-Dīn b. al-Muwaffaq that there is a mentioning of a woman who was a scientist. Finally, according to ibn 'Abī Uṣaybi'a, it may be argued that it was only the male physicians who carried the profession of medicine in their families. In general, ibn 'Abī Uṣaybi'a seems to have been mainly interested in specifying names of family members who were related to or followed the medical profession. His biographical data on the family background of physicians tell us little about marriage, divorce patterns and/or size

of family. Given that ibn 'Abī Uṣaybi'a was mainly interested in concentrating only on medical data, he may be justified in limiting his data to details relevant to his subject matter.

4. Dates of Birth and Death:

The following section is an analysis of all the information dealing with the dates of birth and death of physicians. I intend to find out statistically the importance of such information on the life of physicians. In Egypt, it was only in three cases that ibn 'Abī Uṣaybi'a included both dates of birth and death. These are Sa'īd b. al-Baṭrīq, who was born on Sunday, 3rd of Dhul-Hijja, year 263 A.H. and died on a Monday in the month of Rajab, year 328 A.H. ⁽²²⁴⁾ The second one is al-Qāḍī Nafīs al-Dīn b. al-Zubayr. However, here ibn 'Abī Uṣaybi'a did not provide the day and month of both the birth and death dates, and even in the former date he was not sure of the exact year. Ibn al-Zubayr was born in the year 555 A.H. or 556 A.H. and died in year 636 H. ⁽²²⁵⁾ The third case is that of Abū al-Faḍl b. Sulaymān who was born in the year 560 H., and died in the

year 644 H. Days and months of both birth and death dates are not provided here.⁽²²⁶⁾ Based on these three cases, the life span of physicians ranged between sixty five and eighty four years, but it is not possible to make any generalizations on the life span of physicians on the basis of these few cases. In four cases the birth date was only mentioned without specifying the date of death. However, in these four cases, the day and month were not provided.⁽²²⁷⁾ As for the death date, it appeared more often in the biographical entries. In seventeen cases, ibn Abi Usaybi-a provided information on death dates only. However, we still have twenty seven cases in which ibn 'Abi Uṣaybi-a does not mention any dates.⁽²²⁸⁾ This inconsistency in providing the dates of birth and death may mean two things, either the data was not so important, or it was too difficult to obtain. Obviously, it was much more important to provide dates of death rather than dates of birth. This is probably because the former is easier to find out than the latter. Also, because in specifying the date of death, confusion on whether a person is still alive or dead is avoided.

In Syria, ibn 'Abī Uṣaybi'a provided the dates of birth and death in ten cases only.⁽²²⁹⁾ According to both dates that appeared in these ten cases, the life span of physicians varied from 37 to 97 as in the case of Raḍiyy al-Dīn al-Raḥbī. This makes it difficult to reach a general conclusion regarding the average life span of physicians. In three cases, the birth date alone was provided. These are al-Ṣāhib Najm al-Dīn al-Labūdī,⁽²³⁰⁾ 'Izz al-Dīn al-Suwaydī and 'Imād al-Dīn al-Dinīsri.⁽²³¹⁾ In addition, the date of birth mentioned in these three biographies, only provided the year of birth. It did not specify the day or month. The date of death appeared more frequently, as it was included in twenty seven cases.⁽²³²⁾ The day, month and even hour of death, were provided in these cases. On the basis of the death dates included in ibn 'Abī Uṣaybi'a's work, it is clear that the period in which most of the physicians under consideration died ranged between year 339 H. till 685 H., showing that our author covered the life of physicians living throughout three consecutive centuries. As for the remaining twenty cases ibn 'Abī Uṣaybi'a did not provide information on any of the two dates.⁽²³³⁾

Summing up all the above statistics, it is clear that dates of birth and death appear irregularly in the work of ibn 'Abī Uṣaybi-a. However, the date of death appeared more often, since it was easier to ascertain in the physician's life. In mentioning the date of death, ibn Abi Usaybi-a provided in most cases the exact day, month, year and even in some cases the hour of death. Regarding the date of birth, it was really in very rare cases that ibn 'Abī Uṣaybi-a mentioned the day and month of birth. In general, dates did not seem to be essential details specified in ibn 'Abī Uṣaybi-a's biographical entries. But perhaps one can argue that the reason why ibn 'Abī Uṣaybi-a did not provide the reader with much information regarding the dates of birth and death might be because collecting such information at this age was a difficult task since dates were not officially recorded as in modern societies. It might also be due to the fact that this kind of information was not significant in terms of the medical practice of physicians. The importance of dates lies in the fact that they guide the reader to the exact period in which physicians lived. They were usually important because of the transmission of knowledge from one generation of

scholars to the other. However, because of the unsystematic manner by which data on birth and death was provided in ibn ʿAbī Uṣaybiʿa's work, it is very difficult to reach generalization regarding the life span of physicians. Again, our biographer seems to be able to provide more data on the death dates of the Syrian physicians, which may be explained by the fact that he was of Syrian origin himself.

(B) Political and Economic Status of Physicians:

The physician in medieval Muslim society, "had a feather in his cap".⁽²³⁴⁾ Nearly every physician of significance mentioned by ibn Abi Uṣaybiʿa was a member of the ruler's entourage. Famous physicians seem to have been closely related to the power structure. They shared the glory and the fruits of power, but perhaps they were never involved in the rulers' crimes and their cruel ways of compulsion. Medieval rulers attracted physicians to their courts in order to guarantee medical treatment and to give themselves the image of science patrons. They had a strong belief in the capacity of ancient science, and it was the physicians who were bearers and expounders of these ancient

sciences. Therefore, the more the ruler surrounded himself with physicians, the more he appeared in the eyes of his people as patron of science and knowledge. Furthermore, in surrounding themselves with physicians, medieval rulers were preserving and restoring their health.⁽²³⁵⁾ A close analysis of the biographies of physicians under consideration will allow the reader to check the validity of the above statement and to explore the relation of the physicians to the power structure in more detail.

Out of our sample of fifty one Egyptian physicians, thirty nine were closely related to the power structure. Table (7) shows clearly the close relation these physicians had to the power structure.

Table (7)
Relation of Egyptian Physicians
to Power Structure

Name of Physician	Relation to Power
1. Ishaq b. Nustās	Served the Fatimid caliph al-Ḥākim bi Amr Allāh.

Table (7) - Continued

2. Mūsa b. al-ʿAzar	Served the Fatimid caliph al-Muʿizz li Dīn Allāh.
3. Yūsuf al-Naṣrānī	Patriarch of Bayt al-Maqdis.
4. Saʿīd b. al-Baṭrīq	Patriarch of Alexandira.
5. Al-Tamīmī	Served Yaʿqūb b. Killis, the wazīr of the Fatimid caliph al-Muʿizz and became part of <u>aṭibba al-khāṣṣa</u>
6. Sahlān b. Kisān	Served the Fatimid caliphs and was greatly honoured during the time of al-ʿAzīz.
7. Abu'l-Fath Maṣṣūr b. Sahlān b. Muqashshar	He was one of <u>aṭibba al-khāṣṣa</u> of the Fatimid caliphs, served al-Ḥākim and al-ʿAzīz.
8. ʿAmmār b. ʿAlī al-Mūṣilī	Served the Fatimid caliph al-Ḥākim and dedicated to him a book on the treatment of eye disease.

Table (7) - Continued

9. Al-Ḥaqīr al-Nāfi	Treated al-Hakim and joined <u>aṭibba al-khāṣṣa</u> .
10. Ibn Muqashshar	Served the Fatimid caliph al-Ḥakim, and enjoyed great prestige and wealth under his rule.
11. ʿAlī b. Sulaymān	Served three generations of Fatimid caliphs: al-ʿAzīz bi'l-Allāh, his son al-Ḥakim and his grandson al-Zāhir.
12. Ibn al-Haytham	Al-Ḥakim appointed him to one of the Dawāwīn.
13. Al-Mubāshir b. Fātik	He was an Amīr.
14. ʿAlī b. Ridwān	Served al-Ḥakim who made him chief of all physicians.
15. Ifraim b. al-Zaffān	Served the Fatimid caliphs.
16. Ibn al-ʿAyn al-Zabrī	Served the Fatimid caliphs.

Table (7) - Continued

17. Al-Shaykh al-Sadīd Ra'is al-Ṭibb	Served five generations of the Fatimid caliphs, al-Ḥākim, al-Ḥāfiz, al-Zāfir, al-Faiz and al-ʿAdīd. Also honored by Ṣalāḥ al-Dīn al-Ayyūbī.
18. Ibn Jumayʿ	Served Ṣalāḥ al-Dīn al-Ayyūbī.
19. Abu'l-Bayān al-Mudawwar	Served the Fatimid caliphs at the end of their caliphate and entered the service of Ṣalāḥ al-Dīn.
20. Al-Ra'is Hibatullāh	Served Fatimid caliphs.
21. Al-Muwaffaq b. Shūʿah	Served Ṣalāḥ al-Dīn al-Ayyūbī.
22. Abu'l-Barakāt al-Quḍaʿī	Served al-Mālik al-ʿAzīz b. Ṣalāḥ al-Dīn.
23. Abu'l-Maʿālī b. Tammām	Served Ṣalāḥ al-Dīn and his brother al-Malik al-ʿAdil Abū Bakr b. Ayyūb.

Table (7) - Continued

24. Al-Ra'īs Mūsā b. Maymūn	Chief of Jewish community in Egypt and served Ṣalāh al-Dīn and his son al- Malik al-Afdal.
25. Ibrāhīm b. Mūsā Maymūn	Served al-Malik al-Kāmil Muḥammad b. Abī Bakr b. Ayyūb.
26. Jamāl al-Dīn Abu'l- Ḥawāfir	Served the Ayyubid ruler al-Malik al-ʿAzīz ʿUthmān who made him chief of physicians in Egypt. Also served al- Kāmil Muḥammad and after him al-Malik al-Ṣālih Ayyūb.
27. Fath al-Dīn Abu'l- Ḥawāfir	Like his father, served al-Malik al-Kāmil Muḥammad and al-Ṣālih Ayyūb.

Table (7) - Continued

28. Shihab al-Dīn b. Fath al-Dīn	Chief of physicians, inherited the profession after his father and grandfather and served the Mamluk <u>sultan</u> , al- Zahir Baybars.
29. Al-Qaḍī Nafīs al-Dīn	Served al-Malik al-Kāmil Muḥammad who made him chief of physicians in Egypt, and occupied the position of <u>qāḍi</u> .
30. Afḍal al-Dīn al- Khunjī	Chief of <u>qāḍis</u> (<u>Qāḍi'l- Oudāh</u> in Egypt).
31. Abū Sulaymān b. Abī Dāwūd b. Abī Fanah	He and his sons after him were highly honored by the Ayyubid rulers.
32. Abū Sa'īd b. Abī Sulaymān	He served al-Malik al- Mu'azzam the son of al- Malik al-ʿĀdil Abu Bakr. He served Ṣalāh al-Dīn al-Ayyubī and al-Malik al-ʿĀdil.

Table (7) - Continued

33. Abu Shākir b. Abī Sulaymān	Served al-Malik al-ʿĀdil Ayyūb and his son al-Malik al-Kāmil who let him reside in his palace in Cairo.
34. Abū'l-Faḍl b. Abī Sulaymān	Served al-Malik al-Muʿazzaz and al-Malik al-Kāmil.
35. Rāshid al-Dīn Abū Ḥalīqah	Served three generations of Ayyubid rulers, al-Malik al-Kāmil, his son al-Malik al-Ṣāliḥ and his grandson Turān Shāh and the Mamluk sultan al-Zāhir Baybars.
36. Muḥadhdhab al-Dīn Abu Saʿīd b. Abī Ḥalīqah	Served the Mamluk Sultan al-Zāhir Baybars.
37. Rāshid al-Dīn Abū Saʿīd	Served the Ayyubid Sultan al-Malik al-Muʿazzaz, al-Malik al-Kāmil and al-Ṣāliḥ Ayyūb for nine years.

Table (7) - Continued

38. As-ad al-Dīn Abī'l- Hasan	Served the Ayyubid prince al-Malik Mas-ūd Aqsīs b. al-Malik al-Kāmil.
39. Diyā' al-Dīn al-Bayṭār	Served al-Malik al-Kāmil who made him chief of all herbalists in Egypt and after his death, served al-Ṣāliḥ Ayyūb.

It is clear from the table above that the thirty nine physicians included in the table were closely related to the power structure. This was through treating and serving caliphs and sultans, or through being appointed to high positions in the state. As mentioned in the table, Yūsuf al-Naṣrānī, Sa'id b. al-Baṭrīq, ibn al-Haytham, al-Mubāshir b. Fātik and Afdal al-Dīn al-Khunjī were all related to the power structure because they occupied religious and governmental positions.⁽²³⁶⁾ They might have treated caliphs and rulers, but their importance lies in the fact that they occupied such important positions such as patriarch, amir or

chief of judges. It is the case of the famous scientist, ibn al-Haytham, that deserves special attention here, al-Ḥākim bi Amr Allāh invited him to come from Baṣra, not to treat him, but because he heard of his project concerning the Nile that was supposed to bring welfare to the country. However, this project failed and al-Ḥākim appointed him to one of the dīwāns in the country.⁽²³⁷⁾ As for the remaining physicians, their relation to the power structure was based on the fact that they treated Fatimid caliphs or Ayyubid sultans and became part of their entourage.

Some of the above mentioned physicians served several generations of caliphs. Among the Fatimid caliphs, it was al-Ḥākim bi Amr Allah who attracted the greatest number of physicians to his court. As shown in the table, eleven physicians worked in the service of al-Ḥākim, a matter which may indicate that al-Ḥākim was a patron of science and that he had interests in the medical science of preserving and restoring health. The case of al-Ḥaqīr al-Nāfi, a physician of a lowly background, is worth mentioning. Because of treating al-Ḥākim once, he was invited to join atibba al-khāssa (physicians of the elite) and was granted

one thousand dinars. This is a good example showing how al-Ḥākim highly honored the physicians who worked in his service.⁽²³⁸⁾ Among the Ayyubid rulers, Ṣalāḥ al-Dīn was the one who attracted the greatest number of physicians to his court. As clear from the table, seven physicians worked in his service, and he also seems to have been a great patron of science and scientists.

Twelve physicians remain, whose relation to the power structure was not specified by ibn ʿAbī Uṣaybiʿa. It is not mentioned whether they served caliphs or were appointed to high positions. But it is clearly stated in their biographies that they were all famous physicians who served in major cities: ʿĪsā b. al-Baṭrīq was a famous christian physician;⁽²³⁹⁾ ʿAyūn b. Ayūn was an expert in treating disease;⁽²⁴⁰⁾ Abū Bishr, the physician of the hospital of ʿUzaymiyya, was a famous physician in Egypt, who held an important medical position;⁽²⁴¹⁾ Iṣḥāq b. Yūnus was an expert in the science of medicine and had great knowledge of the philosophical sciences;⁽²⁴²⁾ Salāma b. Raḥmūn was one of the great Egyptian physicians;⁽²⁴³⁾ Mubārak b. Salāma b. Raḥmūn was also considered a great physician;⁽²⁴⁴⁾ Bilmuzaffar b.

Mu'arrāf was known to be an intelligent and hard working physician,⁽²⁴⁵⁾ Abu'l-Faḍā'il b. al-Nāqīd, was also one of the well-known physicians of this time;⁽²⁴⁶⁾ Abu'l-Barakāt b. Sha'yā was a physician of great experience;⁽²⁴⁷⁾ Al-As'ad al-Mahallī was famous in the field of medicine;⁽²⁴⁸⁾ al-Shaykh al-Sadīd Abu'l Bayān was a physician who perfected the medical profession;⁽²⁴⁹⁾ and finally, Abu'l-Naṣr b. Abī Sulaymān had great knowledge in the medical practice.⁽²⁵⁰⁾ Based on the above mentioned data, it can be argued that ibn 'Abī Uṣaybi'a only included in the Egyptian sample physicians who were related to the political structure and who were famous in the field of medicine. Nevertheless, this does not mean that all physicians in Egypt were related to the power structure. Our author might have been only interested in famous physicians and included in his work only those whom he thought were worthy of mentioning. Furthermore, by frequently mentioning the category of aṭibba al-khāṣṣa,⁽²⁵¹⁾ ibn 'Abī Uṣaybi'a insinuates that there must have also been the category of aṭibba al-ʿamma (physicians of the commoners). The latter group, however, seems to be neglected in his biographical entries.

As for the Syrian sample, fifty physicians out of sixty seems to be closely tied to the power structure. They served caliphs and princes and became court physicians. Table (8) shows the specific relation of these fifty physicians to the ruling elite.

Table (8)

The Relation of the Syrian Physicians to the
Power Structure

Name of Physician	Relation to Power
1. Abu'l-Naṣr al-Fārābī	He served al-Amīr Sayf al-Dawlah al-Ḥamadānī.
2. ʿIsā al-Ruqīyy	Served al-Amīr Sayf al-Dawlah al-Ḥamadānī.
3. Abu'l-Ḥakam al-Andalusī	Has several poems in praise of the rulers of Damascus: the Atabegs.
4. Abul-Majd b. Abī'l-Ḥakam	He served al-Sultan al-Malik al-ʿAdil Nūr al-Dīn Maḥmūd who made him in charge of al-Bimaristan al-Nūrī.

Table (8) - Continued

5. Ḥakīm al-Zamān al-Jiliānī	He has several poems in praise of Ṣalāḥ al-Dīn, who highly respected him. He also served al-Malik al-Ashraf Abu'l-Fath Mūsā b. al-Malik al-ʿĀdil Abū Bakr.
6. Abu'l-Faḍl b. Abī Waqqār	He served al-Malik al-ʿĀdil Nūr al-Dīn Maḥmūd b. Zangī
7. Muḥadhdhab al-Dīn b. al-Naqqāsh	He served both al-Malik al-ʿĀdil Nūr al-Dīn and al-Sultan Ṣalāḥ al-Dīn.
8. Abu Zakariyya Yaḥyā al-Bayyāsī	He served al-Sultan Ṣalāḥ al-Dīn.
9. Sukrah al-Ḥalabī	He treated one of the slave girls of al-Malik al-ʿĀdil Nūr al-Dīn.
10. ʿAfīf b. Sukrah	He dedicated a medical treatise to al-Malik al-Nāṣir Ṣalāḥ al-Dīn.

Table (8) - Continued

11. Ibn al-Ṣalāḥ	He served one of the Syrian princes by the name Ḥusām al-Dīn Tamirtāsh b. al-Ghazī b. Artūq.
12. Shihāb al-Dīn al-Suhrawardi	A famous mystic and scientist who was very close to al-Malik al-Zāhir b. al-Nāṣir Ṣalāḥ al-Dīn. However, the Fuqahā accused him of heresy. So Ṣalāḥ al-Dīn sent to his son saying that al-Suhrawardi should be killed.
13. Shams al-Dīn al-Khūwī	He was very close to al-Malik ʿĪsā b. al-Malik al-ʿĀdil who made him chief of Judges.
14. Rāfiʿ al-Dīn al-Jilī	Chief of Judges.

Table (8) - Continued

15. Shams al-Dīn al-Khusrushāhi	Served al-Malik al-Nāṣir Ṣalāḥ al-Dīn Dāwūd b. al-Malik al-Muʿazzam in al-Karak.
16. Sayf al-Dīn al-Amīdī	Served the ruler of Ḥalab, Nāṣir al-Dīn al-Muzaffar b. Ayyūb for years and after his death, he entered the service of al-Malik al-Muʿazzam Sharaf al-Dīn ʿIsā b. al-Malik al-ʿAdil Abū Bakr.
17. Muwaffaq al-Dīn b. al-Muṭrān	Served al-Sultan Ṣalāḥ al-Dīn and married one of his slave girls.
18. Muhadhdhab al-Dīn b. al-Ḥājib	Served Taqiyy 'l-Dīn ʿUmar, the ruler of Ḥama, then served Ṣalāḥ al-Dīn in Egypt and then went back to Ḥama and served the son of Taqiyy 'l-Dīn al-Malik al-Manṣūr.

Table (8) - Continued

19. Al-Sharīf al-Kaḥḥāl	Served Ṣalāḥ al-Dīn.
20. Abū Mansūr al-Naṣrānī	Served Ṣalāḥ al-Dīn.
21. Abu'l-Faraj al-Naṣrānī	Served Ṣalāḥ al-Dīn and his son al-Afdal Nūr al-Dīn ^c Alī and resided at his place at Samisat
22. Fakhr al-Dīn al-Sa ^c atī	Served al-Malik al- ^c Adil and his son ^c Isā who made him his wazīr
23. Shams al-Dīn al-Labūdī	Served al-Malik al-Zāhir Ghāyat al-Dīn Ghāzī b. al-Malik Ṣalāḥ al-Dīn and resided at his place in Ḥalab.
24. Najm al-Dīn al-Labūdī	Served al-Malik al-Mansūr Ibrāhīm b. al-Malik al-Mujāhid b. Aṣḥad al-Dīn Shirkūh, the ruler of Ḥims, and Ṣalāḥ al-Dīn.

Table (8) - Continued

25. Zayn al-Dīn al-Ḥafīzī	Served al-Malik al-Ḥafiz Nūr al-Dīn Arsalān Shah b. Abū Bakr Ayyūb, at Qal-at Ja-bār. Married the daughter of the chief of Ḥalab. Sided with the Mongols when they entered Damascus. - Sided with the Mamlūks when they defeated the Mongols.
26. Muwaffaq al-Dīn 'Abd al-'Azīz	Served al-Malik al-'Adil Abū Bakr.
27. Sharaf al-Dīn al- Rahbī	Refused to serve caliphs.
28. Raḍiyy al-Dīn al- Rahbī	Served al-Malik al-Nāṣir Salāḥ al-Dīn who appointed him to al- Qal-ah and al-Bimaristan.

Table (8) - Continued

29. Sa-d al-Dīn 'Abd al-'Azīz	Served al-Malik al-Ashraf Abu'l-Fath Mūsā b. Ayyūb in the East and in Damascus, where he became chief of physicians.
30. Kamāl al-Dīn al-Himsī	al-Malik al-'Adil asked him to accompany him in his travels but he refused.
31. Muwaffaq al-Dīn al-Baghdādī	Served Ṣalāḥ al-Dīn in Egypt, and treated al-Malik al-'Azīz. He also served al-Malik Dāwūd al-Dīn b. Baḥrām, the ruler of Arzanjan; he dedicated several books to him.
32. Abu'l-Hajjāj al-Isrā'īlī	Served al-Malik al-Zāhir Ghāzi b. Ṣalāḥ al-Dīn and al-Amīr Maymūn al-Qusārī.

Table (8) - Continued

33. ʿUmrān al-Isrāʾīlī	He used to treat caliphs, but was never part of their entourage and refused to accompany them in travel.
34. Muwaffaq al-Dīn Ya-qūb b. Ṣuqlāb	Served al-Malik al-Muʿazzam ʿIsā b. Abū Bakr who wanted to give him charge of the country's affair but b. Ṣuqlāb refused.
35. Sadīd al-Dīn Abu'l-Mansūr	Served al-Malik al-Nāṣir Ṣalāḥ al-Dīn Dāwūd b. al-Malik al-Muʿazzam ʿIsā b. Abū Bakr and resided with him in al-Karak.
36. Rāshid al-Dīn al-Sūrī	Served al-Malik al-ʿĀdil Abū Bakr and his descendants, ʿIsā b. Abī Bakr and al-Malik al-Nāṣir Dāwūd.

Table (8) - Continued

37. Sadīd al-Dīn b. Raḡīqah	Treated Nūr al-Dīn b. Jamāl al-Dīn, ruler of Ḥini city, and served Fath Mūsā b. al-Malik al- ʿAdil.
38. Ṣadaqah al-Sāmīrī	Served al-Malik al-Ashraf Mūsā b. al-Malik al-ʿAdil Abū Bakr.
39. Muḥadhdhab al-Dīn Yūsuf b. Abī Saʿīd	Served ʿIzz al-Dīn Karkhshāh b. Shahīn Shāh b. Ayyūb and his son al- Malik al-Amjad Majd al- Dīn Bahram Shāh.
40. Al-Ṣāhib Amīn al- Dawla	He first served al-Malik al-Amjad Majd al-Dīn Buhrām Shāh and al-Malik al-Ṣaliḥ ʿImād al-Dīn Abu'l Fidā.
41. Muḥadhdhab al-Dīn ʿAbd al-Raḥīm b. ʿAlī	Was highly respected and honoured by caliphs.

Table (8) - Continued

42. Rāshid al-Dīn ʿAlī b. Khalīfah	He first served al-Malik al-Amjad Majd al-Dīn Bahrām Shāh in Baʿalbak. Then served al-Malik al- ʿAdil and after him served his son al-Malik al-Muʿazzam ʿIsā and his grandson al-Malik al- Nāṣir Dāwūd.
43. Badr al-Dīn b. Qādī Baʿalbak	Served al-Malik Muzaffar al-Dīn Yūnus b. Shams al- Dīn Mamdūd b. al-Malik al-ʿAdil, who made him chief of all physicians, occulists and surgeons, then served al-Malik al- Ṣāliḥ Ayyūb.
44. Muḥammad al-Kūlī	Served al-Malik al-Ashraf Mūsā b. al-Malik al- ʿAdil.

Table (8) - Continued

45. Muwaffaq al-Dīn ʿAbd al-Salām	Served al-Malik al-Nāṣir Yūsuf b. Muḥammad b. Ghāzī, the ruler of Ḥalab and resided at his palace.
46. Muwaffaq al-Dīn bin al-Munfākh	Served al-Malik al-Ashraf Mūsā b. Abū Bakr b. Ayyub.
47. Najm al-Dīn ibn al-Munfākh	Served al-Malik al-Manṣūr the ruler of Ḥims and resided at his palace for a period of time.
48. Ibn al-Suwaydī	Worked at the Qalʿah of Damascus.
49. ʿImād al-Dīn al-Dinisīrī	Served at the Qalʿah of Damascus.
50. Abu'l-Faraj b. al-Quff	Served at the Qalʿah of ʿAjlūn and the Qalʿah of Damascus.

The above table shows clearly the relation of fifty physicians to the power structure. These physicians, be

they Jewish, Christian or Muslims, served caliphs, rulers and princes. They became so close to the ruling elite that they, in some cases, became part of the power structure. There are the cases of Shams al-Dīn Khūwī and Rāfi' al-Dīn al-Jilī, who, because of their close relation to caliphs, were appointed as chief judges.⁽²⁵²⁾ There are also several other examples, such as Fakhr al-Dīn al-Sa'atī, who, because of his service to al-Malik al-ʿAdil, was appointed to the post of wazīr.⁽²⁵³⁾ Najm al-Dīn al-Labūdī was so close to the ruler of Hims that he made him his wazīr. Then he was made chief of the diwān of Alexandria and the chief of the diwān of Syria under the rule of Ṣalāḥ al-Dīn.⁽²⁵⁴⁾ There is also the case of Muḥadhdhab al-Dīn Yūsuf b. Abī Sa'īd who was appointed to the post of wazīr in Ba'albak because of his services to ʿIzz al-Dīn Karkhshāh b. Ayyūb and his son Buhrām Shāh.⁽²⁵⁵⁾ Finally, there is the case of al-Ṣāḥib Amīn al-Dawlah, who, as clear from his name, was in charge of the affairs of the country under the rule of the Ayyubid prince Majd al-Dīn b. Buhrām Shāh in Ba'albak, then served al-Malik al-Ṣāliḥ ʿImād al-Dīn Abī'l Fidā who appointed him to the post of wazīr.⁽²⁵⁶⁾ All these cases show clearly the physicians' close relations to the ruling elite who helped

them to occupy powerful positions in their bureaucracies. Furthermore, in some cases, physicians entered into marital relations with the political elites in order to gain more prestige and to guarantee good relations with the elite. A good example is that of Muwaffaq al-Dīn b. Muṭrān, who served Ṣalāḥ al-Dīn and became so close to him, that he married one of the sultan's slave girls and eventually converted to Islam.⁽²⁵⁷⁾ The most interesting example of a physician marrying within the political elite is Zayn al-Dīn al-Ḥāfizī. This physician married the daughter of the chief of Ḥalab. This marriage enhanced his relation with the political elite and facilitated his appointment to a high military post. Zayn al-Dīn seems to have been involved in the political affairs and conflicts of rulers and tended always to side with the powerful. He could be considered a good example of how physicians were involved in political intrigues, through their becoming part of the political structure.

Of all these fifty physicians whose relation to the power structure is specified, the case of Sharaf al-Dīn al-Raḥbī deserves special attention. Ibn 'Abī Uṣaybi'a tells us

that Sharaf al-Dīn had great pride and dignity that he disliked to serve caliphs or join the rulers' entourage.⁽²⁵⁸⁾ This is surprising, especially that most of the physicians mentioned in the work of ibn 'Abī Uṣaybi'a, including his father, uncle and himself, were all court physicians. For example, our author entered the service of prince 'Izz al-Dīn of Sarkhad in Syria,⁽²⁵⁹⁾ and dedicated 'Uyūn al-'Anbā' to Abu'l Ḥasan b. Ghazāl b. Sa'īd, the wazīr of al-Malik al-Ṣāliḥ Najm al-Dīn Ayyūb. This is stated clearly in introduction of the work under study.

There remain ten physicians whose relation to the power structure is not specified. Ibn 'Abī Uṣaybi'a did not mention any information regarding their relation to the ruling elite. However, like in the Egyptian sample, they were all considered to be famous and/or experts in the field of medicine. These are: al-Bayrūdī who is mentioned to be one of the great physicians possessing knowledge of the medical practice.⁽²⁶⁰⁾ Jābir b. Mawhūb al-Sukkarī, one of the significant figures in the medical practice;⁽²⁶¹⁾ Zāfir b. Jābir had great knowledge in the field of medicine and was expert in the philosophical sciences;⁽²⁶²⁾ Mawhūb b. Zāfir

was also famous and significant in the field of medicine;⁽²⁶³⁾ Jābir b. Mawhūb was an expert in the practice of medicine;⁽²⁶⁴⁾ Ibn al-Badhūkh was a great physician and an expert in examining and treating diseases;⁽²⁶⁵⁾ Abu'l-Najm al-Naṣrānī was one of the famous physicians of his time with a great knowledge in the medical practice;⁽²⁶⁶⁾ Abu'l Fadl al-Muḥandis, was a great physician possessing great expertise in medicine and was also an engineer;⁽²⁶⁷⁾ Jamāl al-Dīn al-Raḥbī was one of the great physicians of his time who is mentioned to be an expert in the medical practice;⁽²⁶⁸⁾ Muwaffaq al-Dīn Ya-qūb al-Sāmīrī was an excellent physician and a pioneer in the field of medicine.⁽²⁶⁹⁾ In spite of the fact that these ten physicians did not serve caliphs, they were all famous physicians who seem to have been experts in the medical practice.

Predictably, the relationship between the physicians and the caliphs, greatly influenced the former's economic status. Information included in the biographies under study reveals some data on the wealth enjoyed by such physicians. There are examples of physicians who acquired land, large salaries, valuable gifts and gold through their connection

to sultans and amirs. In Egypt, ibn 'Abī Usaybi'a discussed the wealth acquired by physicians in nine cases only out of our sample of fifty one physicians. Rāshid al-Dīn Abū Ḥalīqah,⁽²⁷⁰⁾ Abu'l-Bayān al-Mudawwar,⁽²⁷¹⁾ Sahlan and ibn Muqashshar were all given salaries and grants, and they acquired wealth through serving caliphs. The extravagance of caliphs towards their physicians is even clearer in the case of al-Shaykh al-Sadīd, Abu'l Manṣūr 'Abdullāh, Rā'is al-Tibb (chief of the medical profession), who was given thirty thousand dinars for treating one of the Fatimid caliphs and fifty thousand dinars when he circumcized the two sons of the caliph al-Ḥāfiz. Over and above this, he was also granted all the silver and gold pots that were in the room at the time of circumcision.⁽²⁷²⁾

There is also the interesting case of al-Ḥaqīr al-Nāfi', a physician of a lowly background, who was able to treat al-Ḥākim after the failure of all the attempts of "Aṭibba al-Khāṣṣa". Al-Ḥākim granted him one thousand dinars, and asked him to join his entourage and gave him the title of al-Ḥaqīr al-Nāfi' (the humble and beneficial one).⁽²⁷³⁾ The case of 'Alī b. Ridwān is also very

interesting, for it shows how a physician from a poor background was able to join the caliph's entourage. His personal assets, personality and intelligence attracted al-Ḥakim bi Amr Allāh to him. The caliph eventually made him chief of physicians. Ibn Ridwān succeeded in making a fortune, and it is said that he saved a sum of twenty thousand gold dinars.⁽²⁷⁴⁾ Finally, it could be deduced that nearly most of the grants given by caliphs to physicians were in the form of cash, gold and gifts. Only in two cases, that of Abū Shākir b. ʿAlī Sulaymān⁽²⁷⁵⁾ and Asʿad al-Dīn Abī al-Ḥasan,⁽²⁷⁶⁾ there is mention of land grants (iqṭaʿāt). However, ibn ʿAbī Uṣaybiʿa does not mention that any of the physicians was granted urban or real estate property. All the above information may lead to the following conclusions: There is a close connection between the political and economic status of physicians. Physicians related to rulers, enjoyed not only greater power, but also greater economic wealth. The fact that ibn ʿAbī Uṣaybiʿa provides only seven examples of how physicians benefited from their relation to the power structure does not mean that the remaining physicians, who were also part of the power structure, did not gain economic wealth from

their connection to the political elite. Predictably, every physician who became part of the power structure enjoyed a high political and economic status. However, it may be that our author only specified the cases of which he was familiar and that he found interesting and worth mentioning.

In our Syrian sample, there are also numerous examples of physicians who acquired wealth as a result of their relation to caliphs and rulers. Sukrah al-Ḥalabī, was granted ten acres of land for treating one of the slaves of al-Malik al-ʿĀdil Nūr al-Dīn Zingī.⁽²⁷⁷⁾ Abu'l-Majd b. Abī'l-Ḥakam,⁽²⁷⁸⁾ Sayf al-Dīn a-Amīdī,⁽²⁷⁹⁾ Muwaffaq al-Dīn ʿAbd al-ʿAzīz,⁽²⁸⁰⁾ Saʿd al-Dīn ʿAbd al-ʿAzīz,⁽²⁸¹⁾ ʿUmrān al-Isrāʾīlī,⁽²⁸²⁾ Sadīd al-Dīn b. Raḡīqa⁽²⁸³⁾ and Rāshid al-Dīn ʿAlī b. Khalīfah⁽²⁸⁴⁾ were all granted salaries, and they acquired great wealth by treating caliphs and amirs. There is also Zayn al-Dīn al-Ḥafizī who was able to make a great fortune through his involvement in the political affairs of the state.⁽²⁸⁵⁾

In a few cases only, ibn ʿAbī Usaybiʿa specifies the precise amount of wealth given by caliphs to physicians.

There are two examples of Radiyy al-Dīn al-Raḥbī and ʿAbd al-Laṭīf al-Baghdādī who were given a monthly salary of thirty dinars each by Sultan Ṣalāḥ al-Dīn.⁽²⁸⁶⁾ In addition to this, the sons of Ṣalāḥ al-Dīn gave al-Baghdādī monthly payments that amounted to one hundred dinars.⁽²⁸⁷⁾ There is also the case of Ya-qūb b. Ṣuqlāb who was given five hundred dinars for treating a prince named Maymūn al-Quṣrī.⁽²⁸⁸⁾ Nonetheless, the most interesting example that shows the generosity and extravagance of sultans towards their physicians is the case of Muwaffaq al-Dīn b. al-Muṭrān who was in the service of the Ayyubid sultan Ṣalāḥ al-Dīn. It happened that the sultan gave one of his physicians called Abū Faraj al-Naṣrānī, all that he needed for the preparation of the weddings of his daughters, such as jewelery, cloth and several other things amounting to thirty thousand dinars. When ibn al-Muṭrān knew of this, he became upset and in order to make it up for him, Ṣalāḥ al-Dīn paid him the same sum of money given to Abū al-Faraj.⁽²⁸⁹⁾

Based on the above political and economic data, one can argue that ibn ʿAbī Usaybiʿa was very careful to specify the professional and political status of the physicians he

included in his sample, and that this category of information was more richly documented than any other studied so far. And we are grateful for that, for it shows physicians regardless of their religious affiliation, to be a potentially powerful group. This is so because of the important services they contributed to the rich and powerful. Through their healing powers, they came into intimate relationships with the ruling elites who paid them generously for their services and gladly kept them to their proximity.

Generally, one can argue that even though examination of ibn 'Abī Uṣaybi'a's data helps us to examine new historical details, one has to be careful not to make far-reaching generalizations for we are limited by data from a tiny sample of physicians, and presented with information of an unsystematic nature. Given these reservations, we can still use our data to evaluate the religious, social, political and economic status of physicians during the Fatimid and Ayyubid rule. In doing so, I hope that we can reconstruct a picture of the life of these physicians. First, physicians living in Egypt or Syria under the Fatimid

and Ayyubid rule, could have belonged to any of three religions: Islam, Judaism and Christianity. Furthermore, physicians belonging to the protected communities served in many cases as religious leaders of their community. Second, physicians tended to move freely between Egyptian and Syrian cities. Yet, they did not travel to distant places in search of science. Nevertheless, there was a tendency among them to reside in major cities and capitals so as to be near the centers of power. Third, physicians often belonged to families of physicians in which one or more of the members worked in the medical field. Fourth, physicians were usually related to the power structure either by serving caliphs or by occupying high religious and political posts in the country. Finally, physicians usually benefited from their relation to the power structure, by acquiring wealth and enjoying a high economic status. Hence, it is only fair to say that the picture painted by ibn 'Abī Uṣaybi'a of the physicians under study demonstrates that physicians enjoyed a special status in Fatimid and Ayyubid society and that they were highly honored by their political patrons. As seen in some exceptional cases, physicians related to the power structure were offered posts in the government, such

as wazīrs, chief qadīs or military leaders, which is indicative of the trust that sultans or amīrs bestowed on them. But this is not the whole picture, for as I noted before, ibn 'Abī Usaybi'a told us the story of the elite physicians (atibba al-khāssa) and not the physicians of the commoners (atibba al-ʿamma). On the latter group, one has to look elsewhere for information. An interesting point to note here, is the intimacy and favours the Jewish and Christian physicians enjoyed with the Fatimid and Ayyubid rulers. Where it concerned science, religion seems to have been unimportant. Here, it seems difficult to detect a policy of discrimination on the part of these Muslim rulers.

NOTES

¹ Dols, Medicine, p. 41.

² Ibid., p

³ Goitein, A Mediterranean Society, Vol. II, p. 242.

⁴ Ibn 'Abī Usaybi'a, 'Uyūn al-'Anbā', Vol. II p.86, 89, 105, 106, 112, 115, 116, 117, 118.

⁵ Ibid., p.86, 87, 89, 121, 131.

⁶ Ibid., p. 130.

⁷ Ibid., p. 87.

⁸ Ibid., p. 89.

⁹ Ibid., p. 90.

¹⁰ Ibid., p. 90. For more information, see Encyclopedia of Islam, New edition, ed. by B. Lewis, V.L. Menage, C.H. Pellat and J. Schacht, (Leiden, London: 1971), pp. 788-789: ibn al-Haytham- Abu'l Ḥasan b. al-Ḥasan b. al-Haytham al-Baṣrī al-Miṣrī, "was identified towards the end of the 19th century with al-Ḥazen, Avennathan and Avenetan of medieval Latin texts. He is one of the principal Arab mathematicians and, without doubt, the best physician".

¹¹ Ibn 'Abī Usaybi'a, 'Uyūn al-'Anbā', Vol. II, pp. 99-105.

¹² Ibid., p. 108.

¹³ Ibid., p. 119.

¹⁴ Ibid., pp. 120-124.

¹⁵ Ibid., p. 133.

¹⁶ Ibid., p. 119.

¹⁷ Ibid., p. 120.

¹⁸ Ibid., pp. 98-99.

¹⁹ Ibid., pp. 109-112.

²⁰ Ibid., p. 120.

²¹ Ibid., p. 123.

²² Ibid., p. 122.

²³ Ibid., pp. 122-123.

²⁴ Ibid., p. 123.

²⁵ Ibid., p. 123.

²⁶ Ibid., pp. 123-130.

²⁷ Ibid., pp. 121-122.

²⁸ Ibid., p. 107.

²⁹ Ibid., p. 118.

³⁰ Ibid., p. 107.

³¹ Ibid., p. 87.

³² Ibid., p. 89.

³³ Ibid., pp. 89-90.

³⁴ Ibid., p. 99.

³⁵ Ibid., p. 117.

³⁶ Ibid., pp. 115-119.

³⁷ Goitein, A Mediterranean Society, Vol. II, p. 244.

³⁸ Ibn 'Abī Uṣaybi'a, Uyūn al-'Anbā', Vol. II, p. 117.

³⁹ Goitein, A Mediterranean Society, Vol. II, p. 304.

⁴⁰ Ibn 'Abī Uṣaybi'a, Uyūn al-'Anbā', Vol. II, p. 86.

⁴¹ Ibid., pp. 86-87.

⁴² Khayrallah, Outline to Medicine, p. 168.

⁴³ Ibn 'Abī Uṣaybi'a, Uyūn al-'Anbā', Vol. II, pp. 163-164.

⁴⁴ Ibid., p. 164.

⁴⁵ Ibid., p. 213.

⁴⁶ Ibid., pp. 213-214.

⁴⁷ Samaritans: A Sāmīrī is the name in the Qurān to the man who tempted the Israelite to the sin of the golden calf. According to al-Zamakhsharī, al-Sāmīrī comes from a Jewish tribe called Sāmīra, whose religion was different somewhat from the Jewish. For more information, see the Shorter Encyclopedia of Islam, ed. by H.A.R. Gibb and J.H. Kramers, (Leiden, 1953) pp. 501-502.

⁴⁸ Ibn 'Abī Uṣaybi'a, Uyūn al-'Anbā', Vol. II, pp. 230-233.

⁴⁹ Ibid., pp. 233-234.

⁵⁰ Ibid., pp. 272-273.

⁵¹ Ibid., pp. 234-239.

⁵² Ibid., pp. 140-143.

⁵³ Ibid., pp. 183.

⁵⁴ Ibid., 183.

⁵⁵ Ibid., p. 183.

⁵⁶ Ibid., pp. 214-216.

⁵⁷ Ibid., pp. 273-274.

⁵⁸ Ibid., p. 143.

⁵⁹ Ibid., p. 175. For more information, see

Encyclopedia of Islam, ed. by M. Th Houtsma, A.J. Wensinca, T.W. Arnold and E. Levi Provencal (Leiden, London: 1938), pp. 778-781. Abū Naṣr Muḥammad b. Muḥammad b. Ṭarkhān b. Awzalagh "referred to as al-Fārābius or Avennasar in medieval Latin text. One of the most outstanding Muslim philosophers, he became known as the second teacher, the first being Arsitotle.

⁶⁰ Ibn 'Abī Uṣaybi'a, Uyūn al-'Anbā', Vol. II, pp. 134-140.

⁶¹ Ibid., pp. 144-155.

⁶² Ibid., pp. 155.

⁶³ Ibid., pp. 155-157.

⁶⁴ Ibid., pp. 157-161.

⁶⁵ Ibid., pp. 164-167.. For more information see al-A-lam of Khayr al-Dīn al-Ziriklī, Vol. 9, Cairo, 1957. "Yahyā ibn Ḥubaysh ibn Amirak Abu'l Futūḥ Shihāb al-Dīn al-Suhrawardī, a philosopher born in Suhraward and was killed by al-Malik al-Zāhir Ghāzī."

⁶⁶ Ibn 'Abī Uṣaybi'a, Uyūn al-'Anbā', Vol. II, pp. 167-171

⁶⁷ Ibid., p. 183.

⁶⁸ Ibid., pp. 189-190.

⁶⁹ Ibid., pp. 190-191.

⁷⁰ Ibid., pp. 192-195.

⁷¹ Ibid., pp. 195-201.

⁷² Ibid., p. 201.

⁷³ Ibid., p. 201.

⁷⁴ Ibid., pp. 216-219.

⁷⁵ Ibid., pp. 219-230.

⁷⁶ Ibid., pp. 239-246.

⁷⁷ Ibid., pp. 265-266.

⁷⁸ Ibid., p. 263.

⁷⁹ Ibid., pp. 267-272.

⁸⁰ Ibid., pp. 181-182.

⁸¹ Ibid., pp. 162-163.

⁸² Ibid., pp. 173-174.

⁸³ Ibid., pp. 174-175.

⁸⁴ Ibid., pp. 191-192.

⁸⁵ Ibid., p. 192.

⁸⁶ Ibid., pp. 201-213.

⁸⁷ Ibid., p. 171.

⁸⁸ Ibid., pp. 171-173.

⁸⁹ Ibid., pp. 259-263.

⁹⁰ Ibid., pp. 264-259.

⁹¹ Ibid., pp. 266-267.

⁹² Ibid., p. 144.

⁹³ Ibid., pp. 185-189.

⁹⁴ Ibid., pp. 265-266.

⁹⁵ Ibid., p. 216.

⁹⁶ Ibid., p. 140.

⁹⁷ Ibid., pp. 161-162.

⁹⁸ Ibid., p. 163.

⁹⁹ Ibid., pp. 263-265.

¹⁰⁰ Ibid., pp. 214-216.

¹⁰¹ Ibid., pp. 272-273.

¹⁰² Goitein, A Mediterranean Society, Vol. II, pp. 240-

241.

¹⁰³ Ibn 'Abī Uṣaybi'a, Uyūn al-'Anbā', Vol. II, p. 89.

¹⁰⁴ Ibid., pp. 107-108.

¹⁰⁵ Ibid., p. 117.

¹⁰⁶ Ibid., p. 118.

¹⁰⁷ Ibid., p. 120.

¹⁰⁸ Ibid., p. 86, 87, 89, 89, 90-99, 99-105, 107, 108, 112, 115, 118, 119, 119, 121, 122, 123-130, 130, 131, 132.

¹⁰⁹ Ibid., p. 86, 89, 98, 99, 106, 107, 112, 115, 130, 132.

¹¹⁰ Ibid., pp. 87-89, 121-122, 131.

¹¹¹ Ibid., p. 119.

¹¹² Ibid., p. 90, 89.

¹¹³ Ibid., pp. 86-87.

¹¹⁴ Ibid., pp. 117-118.

¹¹⁵ Ibid., pp. 121-123.

¹¹⁶ Ibid., pp. 119-120.

¹¹⁷ Ibid., p. 86.

¹¹⁸ Ibid., p. 98.

¹¹⁹ Ibid., pp. 107-108.

¹²⁰ Ibid., p. 117.

¹²¹ Ibid., p. 118.

¹²² Ibid., p. 119.

¹²³ Ibid., pp. 121-122.

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- ¹²⁴ Ibid., p. 122.
- ¹²⁵ Ibid., pp. 122-123.
- ¹²⁶ Ibid., p. 123.
- ¹²⁷ Ibid., p. 123.
- ¹²⁸ Ibid., pp. 131-132.
- ¹²⁹ Ibid., p. 132.
- ¹³⁰ Ibid., p. 133.
- ¹³¹ Ibid., p. 86, 87, 89, 90-98, 98-99, 99-105, 105-106, 107, 108, 109-112, 112-115, 115-116, 116 116-117, 117, 118 118-119, 119, 119-120, 120, 120-121, 130-131.
- ¹³² Ibid., p. 90, 115-116, 116, 117, 118-119, 119, 120, 120-121, 123, 132, 133, 107, 109, 113, 117, 122.
- ¹³³ Ibid., p. 112, 117.
- ¹³⁴ Ibid., p. 118.
- ¹³⁵ Ibid., p. 86.
- ¹³⁶ Ibid., p. 87.
- ¹³⁷ Ibid., p. 118.
- ¹³⁸ Ibid., p. 99.
- ¹³⁹ Ibid., pp. 140-143, 175-181, 181, 183, 183, 184, 185, 189-190, 161, 192, 201, 213, 216-219, 219-230, 239-246, 259-263, 263-265, 265, 266, 265, 267, 272-273, 273, 274.

¹⁴⁰ Ibid., pp. 134-140, 164-167, 167-171, 171, 171-173, 173, 183-184.

¹⁴¹ Ibid., p. 143, 162-163, 192-195, 195-201, 201, 201-213.

¹⁴² Ibid., p. 155-157, 157-161, 213, 263, 163.

¹⁴³ Ibid., pp. 246-259, 182.

¹⁴⁴ Ibid., p. 144.

¹⁴⁵ Ibid., p. 134.

¹⁴⁶ Ibid., p. 140.

¹⁴⁷ Ibid., p. 143.

¹⁴⁸ Ibid., p. 143.

¹⁴⁹ Ibid., pp. 161-162.

¹⁵⁰ Ibid., p. 164-167.

¹⁵¹ Ibid., pp. 192-195.

¹⁵² Ibid., pp. 230-233.

¹⁵³ Ibid., pp. 175-181.

¹⁵⁴ Ibid., pp. 181-182.

¹⁵⁵ Ibid., p. 163.

¹⁵⁶ Ibid., pp. 182-183.

¹⁵⁷ Ibid., pp. 185-189.

¹⁵⁸ Ibid., pp. 190-191.

¹⁵⁹ Ibid., p. 216.

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- ¹⁶⁰ Ibid., pp. 216-219.
- ¹⁶¹ Ibid., pp. 234-239.
- ¹⁶² Ibid., pp. 239-246.
- ¹⁶³ Ibid., pp. 246-259.
- ¹⁶⁴ Ibid., pp. 263-265.
- ¹⁶⁵ Ibid., pp. 267-272.
- ¹⁶⁶ Ibid., pp. 201-213.
- ¹⁶⁷ Ibid., pp. 162-63.
- ¹⁶⁸ Ibid., pp. 184-185.
- ¹⁶⁹ Ibid., p. 192.
- ¹⁷⁰ Ibid., p. 183.
- ¹⁷¹ Ibid., pp. 140, 144, 144-155, 155, 155-157, 163-164, 164, 164-167, 171, 171-173, 174-175, 183, 189-190, 195-201 213, 214, 216, 219-230, 233-234, 259-263, 265, 265-266, 266-267.
- ¹⁷² Ibid., pp. 140-143, 144-155, 155, 155-157, 157-161, 161-162, 162-163, 163, 164-167, 171, 173-174, 174-175, 175-181, 181-182, 183, 183-184, 184, 185-189, 189-190, 190-191, 191-192, 192, 192-201, 201-213, 216, 219-230, 233-234, 234-239, 239-246, 246-259, 259-263, 263, 236-265, 265-274.
- ¹⁷³ Ibid., pp. 143-144, 163-164, 167-171, 184-185, 185-189, 213, 263-264.

¹⁷⁴ Ibid., pp. 174-175, 181-183, 219-230, 263-265.

¹⁷⁵ Ibid., p. 174, 216, 273-274.

¹⁷⁶ Ibid., pp. 233-234, 171-173, 265-266.

¹⁷⁷ Ibid., pp. 198-190.

¹⁷⁸ Ibid., pp. 214-216.

¹⁷⁹ Ibid., pp. 219-230.

¹⁸⁰ Ibid., pp. 273-274.

¹⁸¹ Ibid., p. 86.

¹⁸² Ibid., pp. 86-82.

¹⁸³ Ibid., pp. 106-107.

¹⁸⁴ Ibid., pp. 87-87.

¹⁸⁵ Ibid., pp. 109-112.

¹⁸⁶ Ibid., pp. 115-116.

¹⁸⁷ Ibid., p. 118.

¹⁸⁸ Ibid., p. 119, 120.

¹⁸⁹ Ibid., pp. 117-118.

¹⁹⁰ Ibid., pp. 132-133.

¹⁹¹ Ibid., pp. 121-123.

¹⁹² Ibid., pp. 99-105.

¹⁹³ Muslim biographical dictionaries differed on the emphasis they placed on social information and it seems that ibn 'Abī Uṣaybi'a did not regard the data on family background as an important part of the biographical entry.

¹⁹⁴ Ibn 'Abī Uṣaybi'a, 'Uyūn al-'Anbā', Vol. II, p. 80.

¹⁹⁵ Ibid., p. 86.

¹⁹⁶ Ibid., p. 98.

¹⁹⁷ Ibid., p. 120.

¹⁹⁸ Ibid., pp. 143-144.

¹⁹⁹ Ibid., pp. 192-201.

²⁰⁰ Ibid., pp. 140-155.

²⁰¹ Ibid., pp. 157-161.

²⁰² Ibid., pp. 191-192.

²⁰³ Ibid., pp. 214-216.

²⁰⁴ Ibid., p. 164.

²⁰⁵ Ibid., pp. 175-181.

²⁰⁶ Ibid., p. 183.

²⁰⁷ Ibid., pp. 239-264.

²⁰⁸ Ibid., pp. 234-239.

²⁰⁹ Ibid., pp. 246-259.

²¹⁰ Ibid., pp. 134-140.

²¹¹ Ibid., p. 183.

- ²¹² Ibid., pp. 183-184.
- ²¹³ Ibid., pp. 201-213.
- ²¹⁴ Ibid., pp. 219-230.
- ²¹⁵ Ibid., pp. 265-266.
- ²¹⁶ Ibid., pp. 259-263.
- ²¹⁷ Ibid., pp. 162-163.
- ²¹⁸ Ibid., pp. 181-182.
- ²¹⁹ Ibid., pp. 175-181.
- ²²⁰ Ibid., pp. 189-190.
- ²²¹ Goitein, A Mediterranean Society, Vol. II, p. 246.
- ²²² Petry, 'Ulamā', p. 14.
- ²²³ Khayrallāh, Arabian Medicine, p. 102.
- ²²⁴ Ibn 'Abī Uṣaybi'a, 'Uyūn al-'Anbā' Vol. II, p. 86.
- ²²⁵ Ibid., p. 120.
- ²²⁶ Ibid., p. 123.
- ²²⁷ Ibid., pp. 118-119, 123-130, 130-131, 132..
- ²²⁸ Ibid., p. 86, 87, 87-89, 89, 90, 98-99, 99, 105-106, 106-107, 107, 108-109, 112-115, 115, 116-117, 117, 117-118, 118, 119, 120, 121-122, 132.
- ²²⁹ Ibid., p. 129, 192-195, 195-201, 201-213, 213-214, 216-219 265, 273-274.
- ²³⁰ Ibid., pp. 165-189.

²³¹ Ibid., pp. 266-287, 267-272.

²³² Ibid., pp. 134-140, 140-143, 144-155, 155-157, 157-161, 161-162, 162, 164-167, 167-171, 171, 171-172, 173-174, 174-175, 175-181, 183, 184-184, 190-191, 191-192, 201, 201, 214-215, 265, 272-273.

²³³ Ibid., p. 140, 143, 143-144, 144, 163-164, 164, 181-182, 182-183, 183, 183-184, 189-190, 213, 234-239, 259-263, 263, 263-265.

²³⁴ Goitein, A Mediterranean Society, p. 241.

²³⁵ Ibid., p. 241.

²³⁶ Ibn 'Abī Uṣaybi'a, Uyūn al-'Anbā', Vol. II, p. 86, pp. 90-98, 98-99, 120-121.

²³⁷ Ibid., pp. 90-98.

²³⁸ Ibid., p. 89.

²³⁹ Ibid., p. 87.

²⁴⁰ Ibid., p. 87.

²⁴¹ Ibid., p. 89.

²⁴² Ibid., p. 99.

²⁴³ Ibid., pp. 106-107.

²⁴⁴ Ibid., p. 107.

²⁴⁵ Ibid., p. 104.

²⁴⁶ Ibid., pp. 115-116.

²⁴⁷ Ibid., p. 118.

²⁴⁸ Ibid., p. 118.

²⁴⁹ Ibid., pp. 109-112.

²⁵⁰ Ibid., p. 123.

²⁵¹ Ibid., p. 87, 89, 89.

²⁵² Ibid., p. 171, pp. 171-173

²⁵³ Ibid., pp. 183-184. The term "aṭibba al-khāṣṣa" could mean two things: physicians of the court, or physicians of the elite in society.

²⁵⁴ Ibid., pp. 184-185.

²⁵⁵ Ibid., pp. 233-234.

²⁵⁶ Ibid., pp. 234-239.

²⁵⁷ Ibid., pp. 175-181.

²⁵⁸ Ibid., pp. 140-143.

²⁵⁹ Ibid., p. 143.

²⁶⁰ Ibid., p. 143.

²⁶¹ Ibid., p. 144.

²⁶² Ibid., p. 144.

²⁶³ Ibid., pp. 155-157.

²⁶⁴ Ibid., p. 183.

²⁶⁵ bid., p. 190.

²⁶⁶ Ibid., p. 201.

²⁶⁷ Ibid., pp. 272-273.

²⁶⁸ Ibid., pp. 195-201.

²⁶⁹ Ibid., p. 3.

²⁷⁰ Ibid., p. 123.

²⁷¹ Ibid., p. 115.

²⁷² Ibid., p. 109.

²⁷³ Ibid., p. 89.

²⁷⁴ Ibid., p. 99.

²⁷⁵ Ibid., p. 122.

²⁷⁶ Ibid., p. 132.

²⁷⁷ Ibid., p. 163.

²⁷⁸ Ibid., p. 155.

²⁷⁹ Ibid., p. 174.

²⁸⁰ Ibid., p. 191.

²⁸¹ Ibid., p. 192.

²⁸² Ibid., p. 213.

²⁸³ Ibid., p. 219.

²⁸⁴ Ibid., p. 246.

²⁸⁵ Ibid., p. 189.

²⁸⁶ Ibid., p. 192.

²⁸⁷ Ibid., p. 201.

²⁸⁸ Ibid., p. 214.

²⁸⁹ Ibid., p. 175.

CHAPTER FOUR

ANALYSIS OF DR. S. A. HAYAT'S DATA ON THE PRACTICE AND CONTRIBUTION OF THE MEDICAL PROFESSION

This chapter is a detailed analysis of the information dealing with the medical profession and its contribution to the health of the Egyptian people. It is based on the data collected by Dr. S. A. Hayat in his study of the medical profession in Egypt. The chapter is divided into two main sections: (A) Education and Training of Physicians, and (B) Contribution of the Medical Profession to the Health of the Egyptian People. The first section discusses the various stages of medical education and training in Egypt, from the primary level to the postgraduate level. The second section discusses the various contributions of the medical profession to the health of the Egyptian people, including the prevention of disease, the diagnosis and treatment of disease, and the rehabilitation of the sick.

(A) Education and Training of Physicians

The education and training of physicians in Egypt is a process that begins at the primary level and continues through the postgraduate level. The primary level of education is the primary school, where children learn the basics of reading, writing, and arithmetic. The secondary level of education is the secondary school, where students learn more advanced subjects such as science, history, and literature. The tertiary level of education is the university, where students receive a degree in medicine. The postgraduate level of education is the residency program, where physicians receive specialized training in a particular field of medicine. The chapter discusses the various stages of medical education and training in Egypt, from the primary level to the postgraduate level. It also discusses the various contributions of the medical profession to the health of the Egyptian people, including the prevention of disease, the diagnosis and treatment of disease, and the rehabilitation of the sick.

CHAPTER FOUR

ANALYSIS OF IBN 'ABĪ USAYBĪ'A'S DATA ON THE PRACTICE AND CONTRIBUTION OF THE MEDICAL PROFESSION

This chapter is a detailed study of the information dealing with the medical, scientific and professional practices of physicians that is included in the last two sections of ibn 'Abī Uṣaybi'a's work. Statistics will also be used here in an attempt to give the reader a more precise picture of the medical profession in medieval Egyptian and Syrian context.

(A) Education and Training Background of Physicians:

The education of a physician was of extreme importance. The professional standard of practising medicine depended mainly on the kind of education and the method by which it was taught. To begin with, it is important to know the kind of education needed to prepare a medical student for his future career. As known from Chapter II, medical students

during the medieval period started their education by reading Greek and ancient medical legacies, especially those of Galen and Hippocrates.⁽¹⁾ Based on ibn 'Abī Uṣaybi'a's biographies, an attempt will be made to study in more detail the influence of Greek legacies on the medical education of physicians, and to find out if it was a common element in their education. In Egypt, eleven out of our sample of fifty one physicians are mentioned to have studied Greek medical legacies.⁽²⁾ This was either stated directly in the biographical entries of some physicians, or was deduced from the medical literature produced by them. As for the remaining physicians, ibn 'Abī Uṣaybi'a does not mention whether they studied the Greek medical literature or not. Some physicians wrote commentaries on the works of Galen and Hippocrates and abridged many Greek legacies indicating that they studied Greek medical literature. Table (9) shows in detail the names of the Egyptian physicians who studied the Greek medical legacies and specifies the names of books studied by them.

Table (9)
Egyptian Physicians Who Studied
Greek medical Literature

Name of Physician	Greek Books Studied
1. -Alī b. Sulaymān	Depended on the books of Hippocrates and Galen to write his book <u>Kitāb al-Amthilah wa'l-Tajārub wa'l-Akhhār wa'l-Nukat wa'l-Khawass al-Tibbiyyah</u> , also used the article of Aristotle on vision.
2. Ibn al-Haytham	Abridged the books of Aristotle and explained them, as well as many of Galen's books on Medicine, wrote books on geometry based on Euclid's and Apolonius's theories, commented on the opinions of Hippocrates and Plato.

Table (9) - Continued

3. ʿAlī b. Ridwān	Studied, the books of Hippocrates, Galen, Dioscorides, Rufus, as well as Oribasius's books on the pharmaceutical practices, studied the philosophical books of Plato and Aristotle.
4. Salāma b. Raḥmūn	Read the books of Galen.
5. Ibn al-ʿAyn al-Zarbī	Wrote a book explaining <u>Kitāb al-Ṣināʾah al-Ṣaghira</u> of Galen.
6. Bilmuzaffar b. al-Muʿarrāf	Commented on <u>Tafsīr al-Iskandar li Kitāb al-Kawn wa'l-Fasād</u> of Aristotle.
7. Mūsā b. Maymūn	Abridged the sixteen books of Galen.

Table (9) - Continued

8. Al-Shaykh al-Sadīd Abu'l-Bayān	Read all what Galens mentioned regarding diseases and their treatment. And he wrote commentaries on Galen's book, <u>Kitāb al-ʿIlal wa'l-Aʿrād</u> .
9. Rāshid al-Dīn Abū Ḥalīqah	Learnt by heart <u>Kitāb al-Fusūl</u> of Hippocrates.
10. Rāshid al-Dīn Abū Saʿīd	Studied a large number of Galen's books.
11. Diya al-Din al-Baytar	Studied the books of Dioscorides and Galen that dealt with the preparation of drugs.

As for the Syrian physicians, eighteen out of our sample of sixty are mentioned to have studied Greek medical literature.⁽³⁾ Table (10) shows in detail the names of these eighteen Syrian physicians and specifies the books studied by them.

Table (10)

Syrian Physicians Who Studied
Greek medical Literature

Name of Physician	Greek Books Studied
1. Abī'l-Naṣr al-Fārābī	Read the philosophical books of Aristotle. Wrote commentaries and explained the books of Aristotle, Plato and Galen.
2. Al-Bayrūdī	Rewrote a number of Galens' books in his own handwriting.
3. Ibn al-Badhūkh	Explained <u>Kitāb al-Fusūl</u> of Hippocrates
4. Abū Zakariyyah Yaḥyā al-Bayyāsī	Rewrote the sixteen books of Galen.

Table (10) - Continued

5. Ibn al-Ṣalāḥ	Wrote an article on geometry dealing with "al-Shakl al-Rābi min Ashkāl al-Qiyās al-Ḥamali", which was based on the works of Galen.
6. Najm al-Dīn al-Labūdī	Abridged several books of Euclid.
7. Abu'l Faḍl al-Muhandis	Learnt some of the works of Euclid and read parts of the <u>Almagest</u> by Ptolemy and rewrote the sixteen books of Galen.
8. Raḍiyy al-Dīn al-Raḥbī	Wrote a book commenting and correcting <u>Sharh ibn al-Tayyib li Kitāb al-Fusūl</u> of Hippocrates.
9. Kamāl al-Dīn al-Ḥimṣī	Explained parts of <u>Kitāb al-Ilal wa'l-Arād</u> of Galen.

Table (10) - Continued

10. Muwaffaq al-Dīn al-Baghdādī	Studied the ancient Greek legacies and commented on or explained different works of Hippocrates, Galen, Aristotle, Plato and Dioscoredes.
11. Abu'l-Ḥajjāj al-Isrāīlī	Explained <u>al-Fusūl</u> of Hippocrates.
12. Muwaffaq al-Dīn Ya-qūb b. Ṣuqlāb	Was an expert in the books of Galen.
13. Ṣadaqah al-Sāmīrī	Explained <u>Kitāb al-Fusūl</u> of Hippocrates.
14. Muḥadhdhab al-Dīn ʿAbd al-Raḥīm b. ʿAlī	Was an expert in all the books of Galen.
15. Rāshid al-Dīn ʿAlī b. Khalīfah	Read the books of Galen, learnt some of them by heart and studied the books of Aristotle.
16. Badr al-Dīn b. Qaḍī Baʿalbak	Mentioned the benefits derived from the books of Galen in one of his books.

Table (10) - Continued

17. ʿImād al-Dīn al-Dinisīrī	Wrote <u>Kitāb fi Taqdimāt al-Maʿrifah</u> of Hippocrates.
18. Abu'l-Faraj b. al-Quff	Learnt the ancient books which were usually studied in the medical training of physicians , like <u>Masā'il Hunayn</u> and <u>Fusūl</u> of Hippocrates.

It is clear from the above two tables that only eleven of physicians in Egypt and eighteen in Syria studied Greek medical literature. Such numbers are small if compared to the total sum of physicians in our Egyptian and Syrian samples. This might lead us to argue that Greek medical literature was not an essential ingredient in the education of all physicians. However, it should be noted that ibn Abi Usaybi-a, in the biographical entry of the Syrian physician Abu'l-Faraj b. al-Quff, stated that "ibn al-Quff learnt by heart the books which were usually studied in the medical education of physicians, namely, Masā'il Hunayn and Fusūl

section will discuss whether the medical students in the period under study were exclusively devoted to the study of medicine or they studied other sciences as well. In the case of our fifty-one Egyptian physicians, ibn 'Abī Uṣaybi'a specified the subjects studied by twenty three physicians only.⁽⁶⁾ Table (11) shows the names of these twenty three physicians specifying in detail the sciences studied by each one of them.

Table (11)

Other Sciences Studied
by Egyptian Physicians

Name of Physician	Other Sciences Studied
1. Sa'īd b. al-Baṭrīq	Christian religious sciences
2. Ishāq b. Yūnus	Philosophical sciences
3. 'Alī b. Ridwān	Philosophy
4. Salāma b. Raḥmūn	Logic and philosophy
5. Ibn Jumay'	Arabic language
6. Al-As'ad al-Maḥallī	Philosophy
7. Al-Shaykh al-Sadīd Abī'l-Bayān	Pharmaceutical sciences

Table (11) - Continued

8. Jamāl al-Dīn Abu'l- Ḥawāfir	Arabic literature
9. Abu Sulaymān Dāwūd b. Abī'l Munā Fanah	Astronomy
10. Muḥadhdhab al-Dīn Abū Sa'īd b. Abī Ḥalīqah	Philosophical sciences
11. Rāshid al-Dīn Abū Sa'īd	Arabic language
12. Diyā' al-Dīn al-Bayṭār	Botany
13. Al-Tamīmī	Botany, philosophy and pharmaceutical sciences
14. Mūsā b. Maymūn	Jewish and Islamic religious sciences, and also philosophical sciences
15. Rāshid al-Dīn Abū Ḥalīqah	Philosophical sciences and other sciences and arts
16. Afḍal al-Dīn al- Khunjī	Philosophical and religious sciences

Table (11) - Continued

17. ʿAlī b. Sulaymān	Philosophy, mathematics and astronomy
18. Ibn al-Haytham	Mathematics, Arabic language, religious sciences, philosophical and logical sciences
19. Asʿad al-Dīn Abī'l Hasan	Arabic literature and poetry, as well as, philosophical and religious sciences
20. Bilmuzaffar b. Muʿaraf	Philosophical sciences, literature and poetry. as well as, chemistry
21. Ibn al-ʿAyn al-Zarbī	Philosophical sciences, Arabic language and astronomy
22. Al-Mubāshir b. Fātik	Mathematics, philosophy and logic
23. Yūsuf al-Naṣrānī	Different sciences

As clear from Table (11), ibn 'Abī Uṣaybi'a mentioned that twelve out of our physicians studied only one science besides medicine, while eleven studied up to three or four sciences other than medicine. Philosophical sciences were the most commonly studied among our physicians, they were studied by fifteen physicians. Also Arabic literature, poetry and language were popular subjects among them, seven physicians were experts in this field. Poetry needs special attention here, ibn 'Abī Uṣaybi'a transmitted a considerable number of Arabic poetry and selected couplets that were written by physicians themselves or by other related people. Many of the poems were either satire or praise (hijā' or madh) of some of the physicians under study. He even included poetry that he himself composed in praise of some of the physicians.⁽⁷⁾ Our biographer probably used these poems as a statement on the character traits of physicians. In addition to the above mentioned sciences, the table shows that astronomy and mathematics were studied by three physicians. Pharmaceutical sciences were studied by two physicians. It is rather surprising to find that only two physicians studied pharmaceutical sciences despite the close links between the two sciences of medicine and pharmacology,

perhaps, because the latter had its own experts. Chemistry was studied by one physician only. As for religious sciences, the table shows that only five physicians combined secular sciences with religious scholarship.

Regarding the Syrian physicians, forty four physicians out of our sample of sixty are mentioned to have studied other subjects and sciences besides medicine.^(e) Table (12) shows the names of these physicians and the sciences that they studied.

Table (12)
Other Sciences Studied
by Syrian Physicians

Name of Physician	Other Sciences Studied
1. Al-Bayrūdī	Philosophical and logical sciences
2. Ḥākim al-Zamān al-Jiliānī	Arabic literature and poetry
3. Ibn al-Ṣalāḥ	Philosophical sciences
4. Al-Sharīf al-Kaḥḥāl	Arabic literature, prose and poetry

Table (12) - Continued

5. Shams al-Dīn b. al-Labūdī	Philosophical sciences
6. Zayn al-Dīn al-Ḥāfizī	Arabic literature and poetry
7. Muwaffaq al-Dīn ʿAbd al-ʿAzīz	<u>Fiqh</u> and taught it in the schools in Damascus
8. Saʿd al-Dīn ʿAbd al-ʿAzīz	Religious sciences and <u>fiqh</u>
9. Kamāl al-Dīn al-Ḥimṣī	Arabic literature
10. Sadīd al-Dīn Abū Manṣūr	Philosophical sciences.
11. Rāshid al-Dīn al-Sūrī	Pharmaceutical sciences and was an expert in the preparation of drugs
12. Ṣadaqah al-Sāmīrī	Philosophical sciences
13. Ibn Qādī Baʿalbak	Philosophical sciences
14. Muwaffaq al-Dīn ʿAbd al-Salām	Philosophical sciences
15. Yaʿqūb al-Sāmīrī	Philosophical sciences

Table (12) - Continued

16. Abu'l-Naṣr al-Fārābī	The science of music, philosophy and Arabic literature, especially poetry and syntax
17. Zāfir al-Sukkārī	Philosophical sciences and Arabic literature
18. Abu'l-Ḥakam	Philosophical sciences, Arabic literature, poetry and music
19. Abu'l-Majd b. Abī'l Ḥakam	Engineering, astronomy and music
20. Ibn al-Badhūkh	Religious sciences, <u>ilm al-hadīth</u> , poetry and pharmaceutical sciences
21. Muḥadhdhab al-Dīn b. al-Naqqāsh	Arabic language and literature as well as the Persian language, and <u>hadīth</u>
22. Abū Zakariyyā Yaḥyā al-Bayyāsī	Mathematics, engineering and music

Table (12) - Continued

23. Shihāb al-Dīn al-Suhrawardī	Philosophical and religious sciences, especially <u>fiqh</u>
24. Shams al-Dīn al-Khūwī	Philosophical and religious sciences
25. Rāfi' al-Dīn al-Jilī	Philosophical and religious sciences, especially <u>fiqh</u>
26. Shams al-Dīn al-Khusrushahī	Philosophical and religious sciences
27. Sayf al-Dīn al-Amidī	Philosophical and religious sciences
28. Muwaffaq al-Dīn b. al-Muṭrān	Philosophical sciences and Arabic literature, language and syntax
29. Muḥadhdhab al-Dīn b. al-Ḥājib	Mathematics, Arabic literature, syntax and philosophical sciences
30. Fakhr al-Dīn al-Sa'atī	Astronomy, philosophy, logic, Arabic literature, and music

Table (12) - Continued

31. Najm al-Dīn al-Labūdī	Philosophical sciences, Arabic literature and rhetoric
32. Abu'l-Faḍl al-Muhandis	Engineering, astronomy, Arabic literature and syntax
33. Sharaf al-Dīn al-Raḥbī	Arabic literature, poetry and philosophical sciences
34. Muwaffaq al-Dīn al-Baghdādī	Arabic language, syntax, theology, and religious sciences: <u>fiqh</u> , <u>ḥadīth</u> and <u>taṣawwuf</u>
35. Abu'l-Hajjaj al-Israili	Engineering and astronomy
36. Muwaffaq al-Dīn b. Ṣuqlāb	Natural sciences, engineering, mathematics and astronomy
37. Sadīd al-Dīn b. Raqīqah	Astronomy, Arabic language, syntax and religious sciences, especially <u>ḥadīth</u>

Table (12) - Continued

38. Muhadhhab al-Dīn b. Abī Sa'īd	Philosophical sciences and Arabic literature
39. Muhadhhab al-Dīn 'Abd al-Rahīm b. 'Alī	Philosophical sciences and astronomy
40. Rāshid al-Dīn 'Alī b. Khalīfah	Religious sciences especially the science of the Quran, philosophical sciences, Arabic literature, mathematics, music and the Turkish and Persian languages
41. Najm al-Dīn al-Munfākh	Philosophy, logic, Arabic literature, poetry and music
42. Ibn al-Suwaydī	Philosophical sciences, Arabic literature, and poetry
43. 'Imād al-Dīn al-Dinisīrī	Arabic literature, poetry and religious sciences especially the science of <u>fiqh</u>

Table (12) - Continued

44. Abu'l-Faraj b. al-Quff	Philosophical literature, Arabic literature and poetry
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The table above provided in detail all the sciences studied by the Syrian physicians, under consideration, besides medicine. It shows that fifteen physicians studied only one science besides medicine, while the remaining twenty nine physicians studied up to three or four sciences. As in the case of the Egyptian physicians, philosophical sciences and Arabic language and literature were the most common here also. Twenty seven physicians studied the former and twenty three excelled in the latter field. A great number of poems were also included in the biographies of physicians. Poetry seemed to have a greater significance here than in the chapter of Egyptian physicians. As clear from the table, eleven physicians studied and composed poetry. Besides, one finds a large number of poems and couplets included in the biographical entries of the Syrian physicians. As in Egypt, this was written by physicians,

including ibn Abi Usaybi'a himself, as madh or hiġā' of the contemporary physicians during the period under study. In some of these biographies, poetry formed the bulk of the biographical entry. In the case of Abu'l Ĥakam b. al-Mudhaffar, ibn 'Abī Uṣaybi'a included nine pages of poetry.⁽⁹⁾ Part of this poetry was written in praise of some rulers. Some verses were written as satire of poets, men of literature and physicians. Several other verses described life in general, such as a few lines describing the city of al-Baṣra, and others written on ibn al-Mudhaffar's death.

Except for botany and chemistry, all the other secular sciences that were studied by Egyptian physicians, were also studied by the physicians of Syria. As clear from the table, six Syrian physicians studied music and five studied engineering, two subjects that were not mentioned in the section of Egyptian physicians. Ibn 'Abī Uṣaybi'a stated that physicians studied the science of music and that some of them invented musical instruments,⁽¹⁰⁾ such as the famous philosopher, al-Fārābī, who was an excellent musician. He mastered the science of music and invented an instrument that produced beautiful music. As for the religious

sciences, it is shown in the table that only twelve physicians out of sixty combined secular with religious scholarship. The fact that a small number of physicians in both Egypt and Syria studied religious sciences confirms what was mentioned by Goitein in his work on the Mediterranean Society, that "physicians not known as religious scholars by far outnumber those who were".⁽¹¹⁾ Nevertheless, it should be noted that the twelve physicians mentioned above are the ones who excelled in religious sciences. Obviously, only a minority would be well-known since only the elite were capable of fulfilling the philosophical ideals of comprehensive study.

Finally, summing up all the above information, one can formulate the following hypothesis: medical students, while being trained for the profession tended to study other sciences besides medicine. This is unlike what takes place in our modern society, where medical students spend seven years studying medicine only. It is clear from both the Egyptian and the Syrian samples that philosophy was an important ingredient in the education of the physicians under consideration. The course of study of medieval

Islamic medicine "reflected the Dogmatist combination of medicine and philosophy".⁽¹²⁾ This close relation between the medieval Islamic medicine and the philosophical sciences must be related to the fact that Greek physicians were philosophers. Likewise, the Greek philosophy of medicine was related to the philosophical views of philosophers who combined the discipline of philosophy and medicine. The Greek physicians believed that the body and spirit of man were part of the cosmos, and since philosophy was a science that studied the universe and the nature of man, it became a basic requirement in the education of physicians. Furthermore, the philosophical view of Greek physicians in connecting man to the universe is even more emphasized in the Humoral theory which states that each element of the human body corresponds to one of the elements in nature.

Arabic language, literature and poetry come next in importance in the education of physicians after philosophy. They appear to be important subjects in the education of most of our physicians. It might be that physicians tended to study these disciplines to educate themselves in Arabic culture. As for the poetical production of our physicians,

this further demonstrates their intellectual and cultural talents. But, it is the study of religious sciences that deserves special attention. A fair number of physicians seemed to have excelled in the study of the religious sciences to deserve a mention in their biographical entry. Some of them even taught ḥadīth on the side. Whether or not all physicians had training in the religious sciences is hard to tell, since ibn 'Abī Usaybi'a does not specify this in every entry. But it may be that he only mentioned the exceptional cases. The fact that some of the physicians excelled in the study of religious sciences also goes to show that as an intellectual group, they did not wish to be isolated from their cultural context, since the religious sciences formed the bulk of the Muslim, Christian or Jewish cultures. Further, physicians may have deliberately sought training in the religious sciences in order to show that there were no contradictions between the science of medicine and religion. By doing so, they were probably seeking to gain the respect and confidence of their fellowmen.

Different methods of acquiring knowledge and practical skills needed for the exercise of the medical profession

varied widely. In Chapter Two, it is mentioned that there are three methods of education:

1. Training in hospitals.
2. Private medical colleges.
3. Private tutoring.

Analyzing the information in the biographies under consideration, I found that private tutoring was the most common among physicians in Egypt and Syria. In Egypt, out of our sample of fifty one physicians, ibn 'Abī Usaybi'a mentioned the method of education of seventeen physicians, which was private tutoring.⁽¹³⁾ Table (13) specifies the names of these physicians and their tutors.

Table (13)

Names of Egyptian Physicians
Trained by Private Tutoring

Name of Physician	Name of Tutor
1. Al-Tamīmī	A monk named Zakariyya b. Thawbah

Table (13) - Continued

2. Al-Mubāshir b. Fātik	Ibn al-Haytham, Sayf al-Dīn al-Amīdī and ʿAlī b. Riḍwān
3. Ifraim b. al-Zaffān	ʿAlī b. Riḍwān
4. Salāma b. Raḥmūn	Ifraim b. al-Zaffān and studied philosophical sciences under al-Mubāshir b. Fātik
5. Bilmuzaffar b. Muʿaraf	Ibn al-ʿAyn al-Zarbī
6. Al-Shaykh al-Sadīd Raʾīs al-Ṭibb	His father and ibn al-ʿAyn al-Zarbī
7. Ibn Jumayʿ	Ibn al-ʿAyn al-Zarbī
8. Al-Shaykh al-Sadīd Abī'l Bayān	Ibn Jumayʿ and Abu'l Faḍā'il b. al-Nāqid
9. Jamāl al-Dīn Abī'l Hawāfir	Muhaddhab al-Dīn b. al-Naqqāsh and Raḍiyy al-Dīn al-Raḥbī
10. Nafīs al-Dīn b. al-Zubayr	ʿAlī b. Shuʿah and al-Shaykh al-Sadīd Raʾīs al-Ṭibb

Table (13) - Continued

11. Abu Sa'id b. Abi Sulaymān	His father and others
12. Abū Shāker b. Abi Sulaymān	His brother Abū Sa'id b. Abi Sulaymān
13. Rāshid al-Dīn Abū Halīqah	His uncle, Muhadhhab al-Dīn Abu Sa'id and Muhadhhab al-Dīn 'Abd al-Rahīm b. 'Alī
14. Rāshid al-Dīn Abū Sa'id	Taqiyy al-Dīn Khaz'al b. 'Askar b. Khalīl, Rāshid al-Dīn Abū Sa'id, Rāshid al-Dīn 'Alī b. Khalīfah, and Muhadhhab al-Dīn 'Abd al-Rahīm b. 'Alī
15. As'ad al-Dīn Abu'l Hasan	Abu Zakariyya al-Biyyāsī
16. Ishāq b. Yūnus	Ibn al-Samh
17. 'Alī b. Ridwān	Had no tutors

The table above shows that the tutors mentioned are included in the fifty one biographical entries of Egyptian

physicians. Only three tutors: monk Zakariyyah b. Thawbah, Taqiyy al-Dīn b. Khaz'al and ibn al-Samāh were not included, for they were tutors in Arabic and the philosophical sciences. In addition to all this, it is interesting to note that some of the physicians studied under more than one tutor, a matter which shows that medical students at this age sought the expertise of more than one tutor. The tutors were usually physicians of established fame. It was not always easy for a beginner to have the opportunity to study under the supervision of a famous physician.⁽¹⁴⁾ 'Alī b. Ridwān is an example of a physician who, because of poverty, did not have any opportunity to study under the supervision of any tutor, he depended only on books.⁽¹⁵⁾ 'Alī b. Ridwān became a famous physician and a tutor of many other physicians. His name and that of ibn al-'Ayn al-Zarbī and Muhadhdhab al-Dīn 'Abd al-Raḥīm b. 'Alī, appeared as tutors for more than one physician, which is a good sign of their established fame. 'Alī b. Ridwān and Muhadhdhab al-Dīn 'Abd al-Raḥīm b. 'Alī, appeared as tutors for two physicians; while ibn al-'Ayn al-Zarbī, appeared as a tutor for three physicians. On the other hand, the names of all the other tutors in the list were mentioned only once. Muslim

physicians appeared as tutors of Jewish medical students as in the case of 'Alī ibn Riḍwān, and the student Ifraim. Fathers, brothers and uncles appeared as family tutors, so that the younger generation may carry over the medical profession within the family.

In general, private tutoring meant memorizing medical books and classics on the recommendation of a master and under his supervision.⁽¹⁶⁾ medical study was mostly a theoretical training, but there was also field practice.⁽¹⁷⁾ The best example of practical training is the case of al-Shaykh al-Sadīd Abu Manṣūr 'Abdullāh, Ra'īs al-Ṭibb, whose father also a doctor, "paid him a few dirhams everyday in order to bleed patients outside his house, until he became an expert in this technique".⁽¹⁸⁾ It is not clear why ibn 'Abī Usaybi'a did not mention the name of al-Shaykh al-Sadīd's father and did not include his biography in 'Uyūn al-Anbā'. The reading of public lectures to medical students did not seem to be a common practice. Only one case was referred to by ibn 'Abī Uṣaybi'a, that of ibn Jumay', who "held general meetings for all those who practised under him the art of medicine".⁽¹⁹⁾

Table (14)

Names of Syrian Physicians

In Syria, out of our sample of sixty, ibn 'Abī Uṣaybi'a mentioned the method of education of thirty eight physicians, which was private tutoring.⁽²⁰⁾ However, only one case out of those thirty eight physicians mentioned training in hospitals, namely, the case of Abu'l-Majd b. Abi'l-Hakam. Even though, this physician was tutored by his father, he used to teach his own students at al-Nūrī hospital. "He would come to the hospital and sit in a large auditorium, read his books and prepare his lectures. Several physicians and students used to come and sit at his feet. He taught the students and discussed medical topics and interesting cases with the physicians".⁽²¹⁾ Apart from this case, there is no mentioning of any other method of education, except private tutoring. Table(14) specifies the names of those thirty-eight physicians and the names of their tutors.

1. Shams al-Dīn al-Zuhūrī

Fakhr al-Dīn b. Khayyāb
al-Rayy

10. Shams al-Dīn al-

Fakhr al-Dīn b. Khayyāb
al-Rayy

Table (14)
Names of Syrian Physicians
Trained by Private Tutoring

Name of Physician	Name of Tutor
1. Abu'l Naṣr al-Fārābī	Yūḥanna b. Hilān
2. Al-Bayrūdī	Abu'l-Faraj al-Tayyib
3. Jabir b. Manṣūr al-Sukkari	Aḥmad b. al-Aṣḥaṭh and Muḥammad b. Thawwāb
4. Zāfir b. Jābir al-Sukkari	Abu'l Faraj b. al-Tayyib
5. Abu'l Majd b. Abi'l-Hakam	His father
6. Abu'l-Faḍl b. Abi'l-Waqqār	Eminent physicians from Baghdad
7. Muḥadhdhab al-Dīn b. al-Naqqāsh	Amīn al-Dawlah Hibatullāh b. Sa'īd b. al-Tilmīdh
8. Abū Zakariyya Yahyā al-Bayyāsī	Muḥadhdhab al-Dīn b. al-Naqqāsh
9. Shams al-Dīn al-Khuwī	Fakhr al-Dīn b. Khaṭīb al-Rayy
10. Shams al-Dīn al-Khusrushahi	Fakhr al-Dīn b. Khaṭīb al-Rayy

Table (14) - Continued

11. Ibn al-Muṭrān	His father and then by Amīn al-Dawlah b. al- Tilmīdh
12. Muhadhdhab al-Dīn Aḥmad b. al-Ḥājib	Ibn al-Naqqāsh
13. Abu'l-Najm al-Naṣrānī	Physicians in Damascus
14. Fakhr al-Dīn al- Saʿatī	Raḍiyy al-Dīn al-Raḥbī
15. Shams al-Dīn al- Labūdī	A well-known Persian physician
16. Al-Saḥib Najm al-Dīn al-Labūdī	Muhadhdhab al-Dīn ʿAbd al-Raḥīm b. ʿAlī
17. Zayn al-Dīn al-Ḥafizī	Muhadhdhab al-Dīn ʿAbd al-Raḥīm b. ʿAlī
18. Abu'l-Faḍl b. al- Muhandis	Ibn al-Muṭrān
19. Muwaffaq al-Dīn ʿAbd al-ʿAzīz	Ibn al-Muṭrān
20. Raḍiyy al-Dīn al- Raḥbī	Ibn Jumayʿ

Table (14) - Continued

21. Sharaf al-Dīn al-Raḥbī	His father and Muwaffaq al-Dīn al-Baghdādī
22. Jamāl al-Dīn al-Raḥbī	His father and others
23. Kamāl al-Dīn al-Ḥimṣī	Raḍiyy al-Dīn al-Raḥbī and others
24. Muwaffaq al-Dīn al-Baghdādī	Many tutors in Baghdad, Khurāsān, Syria and Egypt
25. Abu'l-Ḥajjāj al-Isrāīlī	Mūsā b. Maymūn
26. Umrān al-Isrāīlī	Raḍiyy al-Dīn al-Raḥbī
27. Sadīd al-Dīn Abū Manṣūr	His father
28. Rāshid al-Dīn al-Sūrī	Muwaffaq al-Dīn ʿAbd al-ʿAzīz
29. Sadīd al-Dīn b. Raḡīqah	Fakhr al-Dīn al-Mardīnī
30. Muhadhdhab al-Dīn Yūsuf b. Abī Saʿīd	Ibrāhīm al-Sāmīrī, Ismāʿīl b. Abī'l-Waqqār and Muhadhdhab al-Dīn b. Abī'l-Naqqāsh

Table (14) - Continued

31. Muhadhdhab al-Dīn Abd al-Rahīm b. ʿAlī	Raḍiyy al-Dīn al-Raḥbī, Muwaffaq al-Dīn b. al-Muṭrān and Fakhr al-Dīn al-Mardīnī
32. Rāshid al-Dīn ʿAlī b. Khalīfah	Abū Taqiyy Ṣalīḥ b. Aḥmad b. Ibrahīm b. Sulaymān al-Qurashī and Jamāl al-Dīn Abu'l-Ḥawāfir
33. Badr al-Dīn b. Qāḍi Baʿalbak	Muhadhdhab al-Dīn ʿAbd al-Rahīm b. ʿAlī.
34. Muḥammad al-Kūlī	Muhadhdhab al-Dīn ʿAbd al-Rahīm b. ʿAlī
35. Muwaffaq al-Dīn ʿAbd al-Salām	Muhadhdhab al-Dīn ʿAbd al-Rahīm b. ʿAlī and others
36. Najm al-Dīn al-Munfakh	Muhadhdhab al-Dīn ʿAbd al-Rahīm b. ʿAlī
37. Ibn al-Suwaydī	Muhadhdhab al-Dīn ʿAbd al-Rahīm b. ʿAlī and several others

Table (14) - Continued

38. Abu'l-Faraj b. al-Quff	Our author ibn 'Abī Usaybi'a, Shams al-Dīn al-Khusrushāhī, 'Izz al-Dīn al-Darīr, Najm al-Dīn al-Munfākh and Muwaffaq al-Dīn al-Sāmīrī
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Unlike the Egyptian section, the names of tutors mentioned in the Syrian section are not all among the sixty physicians under study. Five tutors are found to be Iraqi physicians belonging to the tenth section in the work of ibn 'Abī Usaybi'a. They are, Abu'l-Faraj al-Tayyib⁽²²⁾, Aḥmad b. al-Ash'ath⁽²³⁾, Muḥammad b. al-Thawwāb⁽²⁴⁾, Hibatullāh Sa'īd b. al-Tilmidh⁽²⁵⁾ and Fakhr al-Dīn al-Mardīnī.⁽²⁶⁾ One tutor is found to be a Persian physician belonging to the eleventh section in the work under consideration⁽²⁷⁾, and one is the Egyptian physician ibn Jumay'.⁽²⁸⁾ There remain four tutors whose biographies are not included in any one of the chapters in ibn 'Abī Usaybi'a's work. They are, Yūḥannā b. Hilān, Ibrāhīm al-Sāmīrī, Abū Taqiyy al-Qurashī and 'Izz al-

Dīn al-Dārīr. It is not even clear if they were tutors of medicine or tutors of other subjects. I was unable to find out any information concerning these four tutors.

Through reading the names of all tutors in the table it is found that the name of Muhadhhab al-Dīn 'Abd al-Rahīm b. 'Alī appeared in seven cases, Rāḍiyy al-Dīn al-Rahbī in four cases and ibn al-Naqqāsh's name appeared in three cases. The fact that physicians worked as tutors for more than one physician, is a proof of their well established fame. Muhadhhab al-Dīn seems to be the most renowned. He was also a tutor of two physicians in the Egyptian section. Besides, whenever ibn 'Abī Usaybi'a mentions his name it is preceded by "our Shaykh" giving him respect, indicating that Muhadhhab al-Dīn was the teacher of many physicians, including ibn 'Abī Uṣaybi'a himself. Finally it is clear from all the above mentioned information, that private tutoring was the most popular method of education. Teaching in hospitals was only mentioned once. However, this does not deny the fact that there might have been several other cases of tutoring in hospitals besides that case of Abu'l-Majd b. Abi'l-Hakam. As stated above, ibn 'Abī Usaybi'a

mentioned only the method of education of only seventeen physicians in Egypt and thirty eight in Syria, so it is possible that among the remaining cases a number of physicians might have adopted the two other methods of education.

(B) The Practice of Medicine:

Where and how was medicine practised in medieval Islamic society? These are important questions that will be dealt with in detail in the following sections. Starting with the first question, it was mentioned in chapter two that medicine was practised in three places: hospitals, physician's clinic or house (Dukkān), patient's place. In analysing ibn 'Abī Uṣaybi'a's work, an attempt will be made here to find out in which one of the three places physicians practised medicine more often. This was not an easy task, because the place of practising medicine is not a common information that is found in all biographies. In the Egyptian sample it was mentioned only in five cases. For example, Ibrāhīm b. Mūsā b. Maymūn practised medicine in the bimaristān that existed in Cairo.⁽²⁹⁾ Al Qaḍī Nafīs al-Dīn

b. al-Zubayr used to treat eye disease in al-Bimaristān al-Nāṣirī⁽³⁰⁾. Al-Shaykh al-Sadīd Abū al Bayān also practised medicine in al-Bimaristān al-Nāṣirī,⁽³¹⁾ ibn Jumay^e practised medicine in his dukkān,⁽³²⁾ while Abū al-Faḍāil b. al-Nāqīd treated patients in their own houses.⁽³³⁾ What is really interesting is that all these physicians belonged to the Ayyubid period. Ibn 'Abī Usaybi'a did not mention any information regarding Fatimid physicians practising medicine in hospitals. This might be due to the fact that hospitals under the Fatimid caliphs were not of great significance, or that he did not possess such detailed information for that period. As mentioned earlier, very little is known of the Fatimid caliphs' interest in charity.⁽³⁴⁾ The Ayyubids, on the other hand, inherited the Mesopotamian tradition which expected rulers to endow charitable institutions. This tradition was followed by their former overlord Nūr al-Dīn Zangī of Syria, who established the great Nūrī hospital in Damascus, which attracted many physicians even in later times.⁽³⁵⁾

In Syria this Nūrī hospital continued to be a centre of attraction to physicians. Therefore, the number of

physicians practising medicine in hospitals in Syria was greater than it was in Egypt. There were sixteen cases of physicians practising medicine in hospitals. Out of these sixteen physicians, thirteen worked in al-Bimaristan al-Nūrī. These are Abu'l-Majd b. Abī'l-Hakam,⁽³⁶⁾ Sharaf al-Dīn al-Rahbī,⁽³⁷⁾ Jamāl al-Dīn al-Rahbī,⁽³⁸⁾ Kamāl al-Dīn al-Himsī,⁽³⁹⁾ Abu'l-Faḍl al-Muhandis,⁽⁴⁰⁾ Muwaffaq al-Dīn 'Abd al-'Azīz,⁽⁴¹⁾ 'Umrān al-Isrā'īlī,⁽⁴²⁾ Sadīd al-Dīn b. Raḡīqa,⁽⁴³⁾ Muhadhhab al-Dīn 'Abd al-Rahīm b. 'Alī,⁽⁴⁴⁾ ibn al-Suwaydī,⁽⁴⁵⁾ al-Dinisīrī,⁽⁴⁶⁾ Shams al-Dīn al-Labūdī⁽⁴⁷⁾ and Sa'd al-Dīn 'Abd al-'Azīz.⁽⁴⁸⁾ The remaining three physicians, Rāshid al-Dīn al-Sūrī, worked in the Bimaristan of al-Quds,⁽⁴⁹⁾ ibn Qaḍī Ba'albak, practised medicine in the Bimaristan of al-Raqqah⁽⁵⁰⁾ and Raḍiyy al-Dīn al-Rahbī worked in the Ayyubid Bimaristan of al-Qal'ah.⁽⁵¹⁾ It was only in two cases, that of ibn al-Badhūkh⁽⁵²⁾ and Ḥakim al-Zamān al-Jiliānī⁽⁵³⁾, that there is mentioning of physicians practising medicine in their clinics. There is also the above mentioned case of Raḍiyy al-Dīn al-Rahbī who, before working in al-Bimaristān, used to practise medicine in his dukkān.

According to the above mentioned, it is fair to argue that hospitals, and more specifically al-Nuri hospital in Syria, were the places in which most physicians practised medicine. Moreover, it could be said that the places in which physicians practised medicine in medieval Islamic society, were quite similar to the places where modern physicians practise medicine today. The dukkān, or physician's clinic may resemble the modern clinic in our society. One can also argue that the place of where a patient is treated is determined by the health condition and status of the patient. Rich patients could afford to have physicians come to their homes. The less sick from the common classes could go to the hospital or clinic where the doctor worked, while the terminally ill, who could not take the long trip to the doctor's hospital or clinic, had to be treated at home.

After discussing the place in which medicine was practised in medieval Islamic society, an attempt will be made to answer the second question: How was it practised in this society? To answer this question, four topics will be discussed: (1) methods of treating disease, (2) areas of

specialization, (3) other professional activities practised by physicians, and (4) ethics and rules guiding the medical profession. Hopefully, after discussing these four topics, a clear picture of how medicine was practised in medieval Islamic society will emerge.

(1) Methods of Treating Disease: Stories of how physicians treated patients are not included in every biographical entry under study. Out of our Egyptian sample of fifty one physicians, ibn 'Abī Uṣaybi'a discussed the treatment of disease in only ten cases. As for the Syrian physicians, it was only in thirteen cases out of our sample of sixty, that our author mentioned stories of disease treatment. On the basis of ten Egyptian cases, it is rather difficult to form an idea of how disease was treated in medieval Muslim society, especially that in these few cases ibn 'Abī Uṣaybi'a did not give details and was not systematic in describing the methods of treating disease. He did not mention the names of the drugs used in treatment and only in one case does he mentioned the different ingredients prescribed. I intend to survey the different cases of disease treatment included in this work, to give the reader

an idea of how such an important topic was covered by our author. First, we have the case of 'Alī b. Ridwān in whose biography ibn 'Abī Usaybi'a mentions some advice given by ibn Ridwān which succinctly summarizes the methods of diseases treatment at this age:

"When a physician visits a patient, he should first give him medicine that would cause no harm until he discovers the disease from which the patient suffers. Discovering the disease means knowing which one of the four elements in the body caused the disease, and then trying to find out which organ it affected. At this stage only, the physician should start treating the disease".⁽⁵⁴⁾

This advice might shed some light on how physicians went about diagnosing diseases.

Second, al-Tamīmī, he was an expert in the formation and composition of simple drugs, different ointments and pastes. He succeeded in knowing the different drugs that constituted al-tiryāq al-fārūq, (the decisive antidote). However, ibn Abī Usaybi'a does not specify the components of this tiryāq or its uses. Furthermore, al-Tamīmī composed another tiryāq which he named mukhallis al-nufūs dāfi- li darar al-sumumāt al-qātila al-mashrūba wa'l-masbūba fi'l-abdān, (the antidote that saves the soul and prevents the

harm of deadly swallow poisons). Here also, ibn 'Abi Usaybi'a does not mention the different elements that formed this antidote.⁽⁵⁵⁾ Third, there is the case of al-Ḥaqīr al-Nāfi', who treated a wound in the leg of al-Ḥakīm bi Amr Allāh. He used a paste that caused the wound to dry out and heal, again, the name and nature of this paste is unspecified.⁽⁵⁶⁾ Fourth, we have the case of Abu'l-Bayān al-Mudawwar who treated al-Amīr b. al-Munqidh from a disease in the liver called al-istisqā' (dropsy). How he treated this disease and what he used in the treatment is not mentioned.⁽⁵⁷⁾ Fifth, al-As'ad al-Maḥallī is mentioned to have treated one of our author's female relatives. This woman was ill for a long time and no one knew the reason for her illness. When al-Maḥallī visited her, he gave her pills that he especially formulated for her illness. He asked her to take the pills every day at noon time, until she was cured. Here also ibn 'Abi Usaybi'a did not specify the kind of illness or the pills used in treating it.⁽⁵⁸⁾ Sixth, the case of al-Shaykh al-Sadīd Abu'l Bayān, who was an expert in the composition of medicine for different and rare diseases. He knew the exact weights and amounts to be used in producing a compound drug. He treated his patients with

both pills and syrups. As in all the other cases, the kind of medicine used is unspecified.⁽⁵⁹⁾ Seventh, Abū Sulaymān Dāwūd b. Abī'l-Munā b. Fanah, who treated the son of king Amārī from leprosy. He composed al-tiryāq al-farūq and used it in treating the son of the King. Based on this, it could be said that leprosy was one of the disease treated by al-tiryāq al-farūq. Yet still, the composition of this drug and its other uses are unknown.⁽⁶⁰⁾ Eighth, there is the case of ibn Jumay^o who was sitting one day in front of his dukkan, and saw a funeral passing. He realized that the man was not yet dead, and asked his relatives to take him out of the coffin and pour hot water over him. The man started to move and the people knew that he was alive. People believed that this was a miracle, and were impressed by ibn Jumay^o's method of treatment. We are told that ibn Jumay^o knew that the man was not dead because he saw that his feet were standing at a right angle while a dead man's feet lie flat. In addition to this story, it is said that ibn Jumay^o also composed al-tiryāq al-farūq.⁽⁶¹⁾

Ninth, the most interesting case of all is that of Rāshid al-Dīn Abū Ḥalīqah. It is only in this case that ibn

'Abī Usaybi'a mentioned some details concerning the composition of drugs and the different elements and herbs used in preparing them. It is interesting to find that Abū Ḥalīqah treated different diseases, and did not specialize in only one. (This question of specialization will be dealt with in detail in a coming section). Abū Ḥalīqah prepared a tiryāq for the treatment of the teeth of al-Sultān al-Kāmil who was suffering from a toothache. When al-Sultān used this tiryāq, all the pain was relieved. He also prepared another tiryāq by which he treated deformed arms. This tiryāq was used to warm the muscles of the arm and dissolve the phlegm, thus curing the arm. It was also used to relieve the pain that takes place in the intestine directly after vomiting, and for dissolving kidney stones. It is interesting to note that the same tiryāq was used in treating different diseases. In addition to this, Abū Ḥalīqah also prepared a special syrup for the Sultan to cure him from high fever, one of the main elements included in this syrup was bidhr al-hindabaa (chicory seed). Finally, it is mentioned that Abū Ḥalīqah prepared for the Sultan a kind of sauce that was added to the food to make its digestion easy and its taste delicious.⁽⁶²⁾ Furthermore, Abū

Ḥalīqah proved to have had a great ability in diagnosing illnesses by using his psychological insights. He is said to have treated a young boy who was getting paler and weaker everyday, without anyone realizing the reason behind his illness. Abū Ḥalīqah realized that when a girl's name was mentioned in front of the boy, his pulse rate increased and his face became paler. Abū Ḥalīqah found out that the name mentioned belonged to a girl that the boy loved and was able to surmise that the reason behind his illness was love. This story shows that knowing the psychological condition of the patient was sometimes decisive in treatment of illness. Tenth, the case of ʿAmmār b. ʿAlī al-Muṣīlī, who was an expert in surgery. This is the only case among all the Egyptian physicians in which there is mentioning of surgery. However, there are no details concerning methods of surgery and no mention of surgical instruments used either.⁽⁶³⁾

As for the Syrian physicians, it is also difficult here to form an idea of diseases treatment on the basis of only thirteen cases. First, there is the case of ibn al-Muṭrān, who is said to have treated a man suffering from leprosy.

"One day when he was on his way to Hims, he met a man whose appearance was completely deformed by leprosy. Ibn al-Muṭrān advised the man to eat snake's meat in order to heal. Later on, when ibn al-Muṭrān was on his way back from Hims, a healthy young man of good appearance introduced himself to him and told him that he was the same deformed man he had met before and that he was healed after he ate snake's meat".⁽⁶⁴⁾

Second, the case of ibn al-Badhūkh, who used to treat people by the compound medicines that he prepared. Such medicines were composed of different pills and pastes.⁽⁶⁵⁾ Third, the case of Sadīd al-Dīn b. Raḡīqa, who treated the sore eyes of his patients by surgery and succeeded in removing the water that covered the eyes of some patients. In doing so, he used an instrument to absorb the water on the eye which blocked the vision. This is the first and only mentioning of surgery among Syrian physicians and is the only case among both Egyptian and Syrian physicians in which our author gave some details concerning surgical instruments.⁽⁶⁶⁾ Fourth, the case of ʿUmrān al-Isrāʾīlī, who succeeded in treating patients suffering from fatal diseases. He depended in his treatment on strange kinds of drugs that he prepared himself. Here our author did not explain what he

meant by the word strange.⁽⁶⁷⁾ Fifth, Muhadhdhab al-Dīn ʿAbd al Raḥīm b. ʿAlī, who treated a man suffering from extremely high fever by making him drink camphor seed syrup. He also gave the advice that an amount of opium should be added to the drinking water given to maniacs. Furthermore, he also treated al-Malik al-ʿĀdil, who was suffering from a severe illness, by means of blood letting. Ibn ʿAbī Usaybiʿa did not specify what kind of illness.⁽⁶⁸⁾ Sixth, the case of Rāshid al-Dīn ʿAlī b. khalīfah, who preferred to treat his patients by the use of drugs, than by means of surgery.⁽⁶⁹⁾ Seventh, the case of Muhadhdhab al-Dīn Abū Saʿīd al-Sāmīrī, who treated the sister of al-Malik al-ʿĀdil from dysentery by giving her camphor mixed in milk, as well as juice of pomegranate and sandal. He also treated al-Ṣaḥīb Shukr, wazīr al-Malik al-ʿĀdil, who was suffering from severe pains in his back, by heating a mixture of different kinds of nutmeg and grease of ben tree, then spreading it all over the back. This is one of the few cases in which our author mentioned in some detail how physicians treated their patients and the ingredients they used in their treatment.⁽⁷⁰⁾ Eighth, ʿAbd al-Laṭīf al-Baghdādī, who treated

al-Malik al-ʿAzīz from pain in the intestine, but there is no mentioning here of the method of treatment.⁽⁷¹⁾

There are several other cases in which ibn ʿAbī Usaybiʿa demonstrated the intelligence of physicians in detecting and diagnosing the disease and saving people who were almost dying, such as the case of Ya-qūb b. Ṣuqlāb who was an expert in disease diagnosis. He is said to have checked every single symptom in order to know the truth of the disease.⁽⁷²⁾ Tenth, Raḍiyy al-Dīn al-Raḥbī, who succeeded in discovering why the face of Ṣafiyy al-Dīn Shukr, the wazīr of al-Malik al-ʿAdil was getting paler every day. He found out that the reason for this was that the wazīr ate too much chicken meat. He advised him to stop eating chicken and eat lamb's meat instead, in order to get well.⁽⁷³⁾ Eleventh, Sukkrā al-Ḥalabī who discovered the reason of illness of one of the slave girls of al-Malik al-ʿAdil, after the failure of all attempts by other physicians. Al-Ḥalabī kept on asking the slave girl questions in an attempt to know the reason of her illness. He managed to discover that the girl came from a Persian Christian tribe that used to eat meat and drink wine. He guessed that the change of food was the

reason behind her illness. Therefore, he advised her to eat the same kind of food she used to eat at home. Eventually, she recovered and got well quickly.⁽⁷⁴⁾ Twelfth, al-Bayrūdī, who saved two men after their families thought they were dead. One was a man who kept eating apricots with hot bread until he fainted and his family thought he was dead. On their way to bury him, al-Bayrūdī stopped them when he knew the story of the man. He asked them to put him down and kept on detecting the signs of life in him. Then he opened the man's mouth and poured something inside it that made him vomit everything that was inside his stomach. His relatives expressed surprise to find the dead man alive again. The other case concerned a man who kept on eating horse meat and drinking cold water until he fainted and his family also thought that he was dead.

"al-Bayrūdī told them that the man is not dead and that he could save him. He took the man to a bath, poured boiling water in his mouth and added to it medicine that made the man vomit. After vomiting the man became normal again. People were surprised at how al-Bayrūdī saved the man."

In addition, al-Bayrūdī treated a man who, after shaving his head, felt hot and his face became swollen. Al-Bayrūdī

advised the man to pour running water over his head. The man did so and was relieved.⁽⁷⁵⁾ Common people might have viewed what al-Bayrūdī did to the two above mentioned men as a miracle. Attributing miracles to physicians is even clearer in the case of al-Suhrawardī, the famous Persian sufi. It is mentioned in his biographical entry that

"while he was travelling with some of his students from Damascus they met a shepherd with his herd. The students took 10 dirhams from al-Suhrawardī to buy a lamb. After they left, the shepherd boy kept following them because he wanted more money. The students said that al-Suhrawardī asked them to leave and he remained to bargain with the boy. Eventually, he left him and came to join his students. The boy came running after al-Suhrawardī and in his anger he pulled his arm. The students reported that they saw the arm of al-Suhrawardī covered with blood in the hand of the boy, who became terrified and dropped it. Al-Suhrawardī then took his truncated arm with his other hand and returned it back to its place".⁽⁷⁶⁾

This story is difficult to believe. For ordinary people, sufis and saints are said to perform miracles, and it may be that the students created such a story to make people believe more in al-Suhrawardī as a miraculous healer. Finally all the above thirteen cases, are examples of how

Syrian physicians treated patients, showing their efficiency and abilities in the medical field.

It is clear from all the above that ibn Abi Usaybi'a discussed the treatment of disease in only few cases in both the Egyptian and Syrian sections. Even in such few cases, he did not give many details concerning the treatment of diseases. However, on the basis of the available information, one can form a general idea of how physicians treated their patients in medieval Islamic society. First, physicians seemed to be clever in diagnosing cases of illness. They used their medical expertise as well as their psychological insights in order to diagnose illness. Second, physicians preferred to treat their patients by the use of drugs rather than by means of surgery. They composed simple and compound drugs by using natural ingredients and herbs, making them into pills, syrups and pastes. Third, advice on dietary habits seemed to be used in the treatment of certain illness. Also, the classical medieval medical practice of blood letting seemed to have been much in use by physicians in our samples.

(2) Areas of specialization: "An overlapping in medical practice was the rule rather than the exception in the Muslim society".⁽⁷⁷⁾ However, in some cases, specialization was strictly adhered to. From reading the work of ibn 'Abi Usaybi'a, I found that the only fields of medical specializations during the period under study were ophthalmology, surgery, pharmacology and botany. In Egypt, out of our sample of fifty one physicians, our author mentioned the field of specialization of nine physicians only.⁽⁷⁸⁾ The following table will specify in detail the field of specialization of these nine physicians.

8. Al-Qadī Rafī' al-Dīn	Ophthalmology
9. Dayā' al-Dīn al-Bayṭar	Botany and pharmacology

From the table above, it is clear that most physicians tended to specialize more in ophthalmology which was known in their time as *al-ʿayn*, and the oculist as *al-ʿaynī*. Then comes surgery, pharmacology and botany.

Table (15)
Fields of medical Specialization
of Egyptian Physicians

Name of Physician	Field of Specialization
1. A-yūn b. A-yūn	Ophthalmology
2. Al-Tamīmī	Botany
3. -Ammār b. -Alī	Ophthalmology
4. Al-Ḥaqīr al-Nāfi-	Treatment of wounds
5. Abu'l Faḍā'il b. al-Nāqid	Ophthalmology
6. Al-Muwaffaq b. Shu'ah	Surgery and ophthalmology
7. Abu'l Barakāt al-Qudā'i	Surgery and ophthalmology
8. Al-Qaḍī Nafīs al-Dīn	Ophthalmology
9. Ḍiyā'al-Dīn al-Bayṭār	Botany and pharmacology

From the table above, it is clear that most physicians tended to specialize more in ophthalmology which was known in their time as ṣinā'at al-kuhl, and the oculist as kahhāl.⁽⁷⁹⁾ Then comes surgery, pharmacology and botany.

In Syria, out of our sample of sixty physicians, the field of specialization of only ten physicians is known.⁽⁸⁰⁾ The following table will specify the names of these physicians and their areas of specializations.

Table (16)
Fields of medical Specialization
of Syrian Physicians

Name of Physician	Field of Specialization
1. Ibn al-Badhūkh	Pharmacology
2. Ḥākim al-Zamān al-Jiliānī	Ophthalmology
3. Al-Sharīf al-Kaḥḥāl	Ophthalmology
4. Sadīd al-Dīn b. Raqīqa	Surgery and ophthalmology
5. Muḥadhdhab al-Dīn ʿAbd al-Raḥīm b. ʿAlī	Ophthalmology
6. Rāshid al-Dīn ʿAlī b. Khalīfah	Ophthalmology
7. Badr al-Dīn b. Qādī Baʿalbak	Surgery and ophthalmology. He was the head of surgeons and oculists
8. Rāshid al-Dīn al-Sūrī	Pharmacology

Table (16) - Continued

9. Abu'l-Hajjāj al-Isra'īlī	Ophthalmology
10. Ibn al-Muṭrān	Many different fields

It is clear from the table that five physicians specialized in ophthalmology, two specialized in both fields of surgery and ophthalmology, two specialized in pharmacology and one specialized in different fields which are not specified. However, it is the case of Abu'l-Hajjāj al-Isra'īlī that deserves special attention. Ibn 'Abī Uṣaybi'a did not mention his field of specialization in his biographical entry. Yet our author states that his own father learnt sinā'at al-kuhl from Abu'l Hajjāj al-Isrā'īlī, showing that the latter was an oculist.⁽⁸¹⁾ Finally, on the basis of both Egyptian and Syrian samples, it could be deduced that specializing in the medical profession in the two societies, was the exception rather than the rule and that there was an overlapping in the medical practice. Fields of specialization were ophthalmology, surgery, pharmacology and botany. Surgery and ophthalmology may have

been related as four physicians in both the Egyptian and Syrian samples, seem to have been specialists in both fields. Besides, the specialized disciplines of pharmacology and botany were probably interrelated since treatment of diseases was based primarily on herbal medicine. An interesting point, is that there was no mentioning at all of teeth treatment, in the work of ibn 'Abī Usaybi'a. This could be due to the fact that specialized dentists did not exist during this period. Teeth were treated by general practitioners.⁽⁸²⁾ This is to be expected in a medieval society since sharp specialization in all fields came to be a product of modern science. However, one should be very cautious in reaching general conclusions, taking into consideration the tiny samples we are working with.

(3) Other professional activities practised by physicians: "It was not regarded as incompatible with the dignity of the profession for a physician to engage in business as a sideline".⁽⁸³⁾ Gotein mentioned in his book, Mediterranean society, that Mūsā b. Maymūn advised one of his disciples to gain his livelihood by practising commerce

along with the teaching of medicine.⁽⁸⁴⁾ Nevertheless, there is not much information regarding the other occupations practised by physicians in the work of ibn 'Abī Uṣaybi'a. In Egypt, out of our sample of fifty one physicians, seven only practised other occupations besides medicine.⁽⁸⁵⁾ The following table will specify the names of these physicians and the kind of occupation they practised.

Table (17)

Other Occupations Practised
by Egyptian Physicians

Name of Physician	Other Occupations Practised
1. Yūsuf al-Naṣrānī	Patriarch of Bayt al-Maqdis.
2. Sa'īd b. al-Baṭrīq	Patriarch of Alexandria.
3. Ibn al-Haytham	Headed several diwans during the reign of al-Hakim.
4. 'Alī b. Ridwān	Worked as an astronomer.
5. Afdal al-Dīn al-Khunjī	Chief of Judges.
6. Diyā'al Dīn al-Bayṭār	Chief herbalist.

Table (17) - Continued

7. Mūsā b. Maymūn	Chief of Jewish community.
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The fact that only seven physicians occupied other occupations besides medicine may lead the reader to believe that it was not common among Egyptian physicians to work in another field than medicine. Furthermore, no one of these seven physicians practised commerce or was engaged in trade. Four physicians occupied religious offices, one was a bureaucrat, one astronomer, and one a herbalist. The latter profession is closely related to the medical field. This is contradictory to what Goitein mentioned in his work, regarding the engagement of physicians in business on the side. Furthermore, it is also mentioned that some documents on sugar factories show that physicians in Egypt participated in the operation of these factories and had shares in them.⁽⁸⁶⁾ Yet this type of information does not appear in ibn 'Abī Uṣaybi'a's book. It could be said that Egyptian physicians selected by our author for study, were not representative of the whole population of physicians in

the country. Or that ibn 'Abī Uṣaybi'a was not interested in the other professions practised by physicians. Only their medical career was of interest to him. Yet, this is debatable since in the chapter on Syrian physicians, he mentions more details and information on the subject.

In Syria, out of our sample of sixty physicians, ibn 'Abī Uṣaybi'a mentioned the other professional activities practised by twenty four physicians, who will be mentioned in detail in the following table.⁽⁸⁷⁾

Table (18)

Other Occupations Practised
by Syrian Physicians

Name of Physician	Other Occupations Practised
1. Abu'l Naṣr al-Fārābī	A guard of a garden in Damascus in his early life, and then a Judge
2. Al-Bayrūdī	A farmer
3. Abu'l Majd b. Abī'l	An engineer
Ḥakam	

Table (18) - Continued

4. Ibn al-Badhukh	A Perfumer
5. Hakim al-Zamān al-Jiliani	A chemist
6. Abu Zakariyya Yahya al-Bayyāsī	A Carpenter and invented several machines
7. Shams al-Din al-Khuwī	Chief of Judges and also worked as a <u>faqih</u>
8. Rafīʿ al-Dīn al-Jilī	Chief of Judges and a <u>faqih</u>
9. Sayf al-Dīn al-ʿAmidī	Tutor of the <u>fugaha</u>
10. Muhaddhab al-Din b. al-Hajib	Repaired the clocks of the Damascus mosque
11. Fakhr al-Din al-Saʿatī	A clock maker and a <u>wazir</u> for al-Malik al-ʿAdil
12. Al-Sāhib Najm al-Dīn al-Labudī	<u>Wazir</u> of al-Malik al-Mansur b. al-Malik Asad al-Din Shirkuh in Hims, head of the <u>diwān</u> of Alexandria, and head of the monetary <u>diwān</u> in Syria

Table (18) - Continued

13. Zayn al-Dīn al-Ḥāfizī	Leader in the army
14. Abu'l-Faḍl al-Muhandis	Carpenter, engineer, astronomer and notary
15. Muwaffaq al-Dīn ʿAbd al-ʿAzīz	A <u>faqīh</u>
16. Saʿad al-Dīn ʿAbd al-ʿAzīz	An architect
17. Raḍiyy al-Dīn al-Raḥbī	A trader
18. Jamāl-al-Dīn al-Raḥbī	A carpenter and trader
19. Kamāl-al-Dīn al-Ḥimṣī	A trader
20. Abu'l-Ḥajjāj Yūsuf al-Isrā'īlī	An engineer and astronomer
21. Saḍīd al-Dīn b. Raqīqah	An astronomer
22. Muḥadhdhab al-Dīn Yūsuf b. Abī Saʿīd	A <u>wazīr</u>
23. Al-Ṣāhib Amīn al-Dawlah	A <u>wazīr</u>
24. Rāshīd al-Dīn ʿAlī b. Khalīfah	A military official

It is clear from the table above, that the number of physicians in Syria, engaged in another occupation besides medicine, is much greater than in Egypt. Yet it is still small compared to the whole Syrian sample. Furthermore, as in Egypt, engagement in trade does not seem to be a common practice among Syrian physicians. As shown in the table, only three physicians gained their livelihood by trade. The common occupations were engineering, carpentry, religious and political occupations. However, this should not be taken as a general rule because of our tiny sample and the fact that it might not be representative of the whole population of physicians in Syria. Besides, it could be that most of the physicians under consideration were wealthy physicians, who gained their wealth because of their relation to the power structure. Hence, they need not be engaged in other occupations to gain more money.

(4) Ethics and rules guiding the medical profession:

Ibn 'Abī Usaybi'a did not mention any information in his work concerning the hisbah office which is the major institution responsible for controlling the medical profession during

this period. Moreover, he mentioned nothing about the muhtasib who was in charge of this office and whose role was highly emphasized in the secondary sources.⁽⁸⁸⁾ The reason for this might be that ibn 'Abī Uṣaybi'a included only in his study physicians of the elite. These served caliphs and rulers and were part of the power structure, so they did not come under the control of a lower official such as the muhtasib. It might have been that the muhtasib imposed his power only on the physicians of the commoners. Our physicians, being part of the power structure, were the ones to put the rules and guide other physicians. There are several cases which show how some of the Egyptian and Syrian physicians under study were responsible for controlling the medical profession and defining its rules and ethics for other physicians. First, there is the interesting case of Jamāl al-Dīn Abu'l-Ḥawāfir, who was walking in the market one day when he saw a seller sitting on a bench and in front of him stood a Jewish physician who was treating the seller's eyes. Abu'l-Ḥawāfir hit the physician with a stick, rebuked him and told him that the medical profession is a prestigious profession and that the physician should respect himself, and never stand in front a seller from the

common people, instead, he should sit beside him while treating him.⁽⁸⁹⁾ Second, there is the case of 'Alī b. Ridwān who had stated the seven characteristics, specified in chapter two, that should be acquired by every physician practising medicine, thus stressing the ethical qualities in physicians.⁽⁹⁰⁾

Third, Muwaffaq al-Dīn al-Baghdādī who defined some advices and rules which a person should follow in order to lead a perfect life.⁽⁹¹⁾ Fourth, Rāshid al-Dīn 'Alī b. Khalīfah who stated over thirty pieces of advice, showing how a physician should study medicine and stressing the rules and ethics that should be adopted in life in general and in practising medicine in particular.⁽⁹²⁾ All the above information shows how the physicians under study took up the responsibility for laying down the rules and ethics that control the medical profession and guide other physicians in their practice of medicine. It is true that ibn 'Abī Usaybi'a included such information only in four biographies, two from Egypt and two from Syria. Nevertheless, they might shed some light on the role of physicians of the elite in

setting the rules for the medical profession in medieval Islamic society.

(C) *Literary Production of Physicians:*

The Muslim society under consideration was greatly enriched by a wealth of medical literary production. An analysis of the biographical entries of the physicians under consideration shows that most of these physicians contributed to the medical and non medical literature, all of which will be included in an appendix that is attached to this research. Hopefully this appendix will be an aid for the more specialized researchers interested in the specialized literary production of physicians. In the following section, I will provide a general idea of the kind of literature included in this appendix and will try to analyze the medical and non medical literature produced by physicians.

Starting with the medical literature, the physicians under study wrote manuals on pharmacology, preparation of drugs and herbal treatment. They also wrote treatises on

eye disease, treatise on fever, tumors, hemerroids, paralysis, books on toxicology, books on vision and hearing, treatise on fertility and books on surgery and anatomy. Besides, some books were written on the treatment of skin disease such as leprosy. Furthermore, there are treatises that were written on the treatment of two strange diseases known as diseases of the Elephantiasis and the Lion.

Regarding the non medical literature, it is interesting to find that physicians wrote in many different fields showing how the education of physicians was not confined to medicine only, but that physicians had knowledge of various intellectual disciplines in their society. Many of the physician under consideration produced books on philosophy and logic emphasizing the close relations between philosophical studies and medicine. They also commented on and explained the ancient Greek philosophical literature. Besides philosophy, physicians produced books in many other fields such as religious and spiritual matters. Some physicians wrote books on tafsīr al-Qurān, hadīth and on fiqh. Furthermore, there are also books on theology, calligraphy, Arabic language, syntax, poetry and rhetoric.

There are also books written on mathematics, engineering, physics, astrology and biology. Apart from these fields, several other books were written in varied subjects such as cosmology, the soul, proverbs, treatise on hot weather, on how to gain money, on happiness, on rain, on chickens, and on death.

Ibn 'Abī Uṣaybi'a made an effort to record every single book, manual or treatise written by the physicians under study in different fields. However, he did not mention much information on how they were written. It was only in few cases that he included such details. In Egypt, there is the case of ibn al-Haytham who spent part of his life writing books. He used to write three books in one year.⁽⁹³⁾ Al-Mubāshir b. Fātik spent most of his time writing books and left a library filled with books on various subjects.⁽⁹⁴⁾ Ibn al-Ayn al-Zarbī, also wrote many books medicine and on other fields.⁽⁹⁵⁾ Bilmuzaffar b. Mu'arraḥ, wrote several books in chemistry, medicine and philosophy. His hand writing was clear and his style of writing was perfect.⁽⁹⁶⁾ Ibn Jumay' wrote several important useful works, his style of writing was clear and the language he used was perfect,

because he was an expert in the Arabic language.⁽⁹⁷⁾ Finally, comes *Ḍiyā 'l-Dīn al-Bayṭār*, the famous herbalist, whose methods in writing were described in more detail by our author.

"*Ḍiyā 'l-Dīn al-Bayṭār* was very meticulous in writing his books, when he commented on one of the books written on medicine and drugs. He used to mention in detail what Dioscoredes and Galen said about such drugs. He states clearly their description of drugs and compares it with the description of the contemporary researchers on the same drugs. He analyzes all this and tries to check any faults or mistakes committed by both ancient and contemporary physicians".⁽⁹⁸⁾

Finally, it is clear from the above six cases, that *ibn 'Abī Usaybica* was not interested in demonstrating methods used in writing medical books. It was only in the last case, that of *Ḍiyā 'al-Dīn al-Bayṭār*, that our author mentions information concerning the methodology followed by such a great herbalist to produce a book. In all the other cases, he simply commented on the literary style of writing.

As for Syria, *ibn 'Abī Uṣaybi'a*, mentioned more detail on the method and procedures of producing books. Out of our sample of sixty, he mentioned the methods followed by

forteen physicians. There is the case of the famous philosopher and physician, Abu'l Naṣr al-Fārābī, who collected all the information needed for the study of logic. He made a great effort to collect all the information that ancient writers neglected to write. He had a good style in writing and his books were complete and perfect.⁽⁹⁹⁾ The physician ibn al-Ṣalāḥ, produced books written in a clear and eloquent style.⁽¹⁰⁰⁾ Shams al-Dīn al-Khūwī and Rāfi' al-Dīn al-Jilī, were both experts in language and therefore produced books that were perfect in style.⁽¹⁰¹⁾ Muwaffaq al-Dīn b. al-Muṭrān, cared very much to collect and write books, and wrote his books in a clear handwriting. When he died, he left ten thousand books. Furthermore, he also hired writers and gave them monthly salaries to copy books for him.⁽¹⁰²⁾ Fakhr al-Dīn al-Sa'ātī wrote several books in perfect clear handwriting.⁽¹⁰³⁾ Abu'l-Faḍl al-Muhandis wrote in his own handwriting several philosophical and medical books, he rewrote the sixteen books of Galen.⁽¹⁰⁴⁾ Al-Baghdādī wrote many books and produced several copies from his books and from the books of the ancients.⁽¹⁰⁵⁾ Najm al-Dīn al-Munfākh was good at the art of writing.⁽¹⁰⁶⁾ Muwaffaq al-Dīn al-Sāmīrī's writing was clear in meaning and

beautiful in style.⁽¹⁰⁷⁾ Muhaddhab al-Dīn ʿAbd al-Rahīm b. ʿAlī, wrote over one hundred books on medicine, all written in beautiful handwriting.⁽¹⁰⁸⁾ Also ʿIzz al-Dīn al-Suwaydī wrote many medical books in his own hand writing but in different inscriptions.⁽¹⁰⁹⁾ Then comes al-Ṣāhib Amīn al-Dawlah and Rāshid al-Dīn al-Sūrī, whose methods in composing medical books are described in more details by our author. Al-Ṣāhib Amīn al-Dawlah cared very much to collect and write books. He hired writers to copy books for him. Once he wanted to have a copy from "Tarikh Dimishq" by al-Hafiz ibn ʿAsākir. As the book came out in eighty volumes, Amīn al-Dawlah distributed the eighty volumes among ten writers; each one took eight volumes and the book was copied in two years.⁽¹¹⁰⁾ Then, we have the case of Rāshid al-Dīn al-Sūrī, it is in this case that ibn ʿAbī Uṣaybiʿa mentions very specific details on how al-Sūrī wrote one of his books. It is mentioned that,

"on writing a book on plants, al-Sūrī went to places where different kinds of plants grew, like Mount Lebanon. He used to take a painter with him to paint the plants, and their leaves in their natural colours. He also made the painter paint the plants in their different life stages. Al-Sūrī included such paintings in his book so that

the book clearly represented the different stages in the plant's life".⁽¹¹¹⁾

The fact that al-Ṣūrī went out to the mountains, accompanied by a painter to study the growth of plants, shows how this physician gave great importance to field work and research and how he exerted great effort to produce a reliable book.

This chapter was an attempt to shed some light on the practice and contribution of the medical profession during the Fatimid and Ayyubid periods. First, it covered the education and training background of physicians. It showed how the Greek medical literature was an important element in the education of physicians. Also the analysis carried out in this chapter provided the different sciences studied by the physicians besides medicine, emphasizing the close relations between philosophical sciences and medicine. In addition, the chapter also discussed the different methods of education, stressing the importance of private tutoring during this period. Second, the chapter discussed the place of practising medicine, reaching the conclusion that hospitals, and more specifically al-Nūrī hospital, were the places in which most physicians practised medicine in the 10th-13th Egypt and Syria. The method of disease treatment,

areas of specialization, the other professional activities practised by physicians, and the ethics guiding or controlling the medical profession, were all discussed in detail in order to give the reader a clearer picture of how medicine was practised in medieval Muslim society. Third, the chapter also discussed all the medical and non-medical literature produced by physicians and an attempt was made to cover the different methods and procedures of producing such books. Nevertheless, it is clear throughout this chapter and the previous one that ibn 'Abi Uṣaybi'a tended to supply more details on Syrian rather than Egyptian physicians. This might be because our author was a Syrian physician himself. It is known that he spent a great part of his life in Syria so it is only expected that he would have more knowledge of the physicians in his homeland. In general, however, he seems to have given more attention in recording the written literature of the physicians, be it strictly medical or not. What is interesting to note is that they contributed equally to fields within the medical tradition and outside it. This can be observed from the appendix included in this research.

NOTES

¹ Goitein, A Mediterranean Society, Vol II, p 249.

² Ibn 'Abī Uṣaybi'a, Uyun al-Anba, Vol. II, p. 90, pp. 90-98, 99-105, 106-107, 107-108, 108-109, 117-118, 118-119, 123-130, 131-132, p. 133.

³ Ibid., pp. 134-140, 140-143, 155-157, p. 163, pp. 164-167, 185-189, 190-191, 192-195, p. 201, pp. 201-213, p. 213, pp. 214-216, 230-233, 239-246, 246-259, 259-263, 267-272, 273-274.

⁴ Ibid., p. 273.

⁵ Dols. Medicine, p. 27.

⁶ Ibn 'Abī Uṣaybi'a, Uyūn al-'Anbā', Vol. II, pp. 86-87, p. 99, pp. 99-105, 106-107, 112-115, p. 118, pp. 118-119, p. 119, pp. 121-122, 130-131, 131-132, p. 133, p. 87, pp. 117-118, 122-130, 120-121, p. 90, pp. 90-98, 132-133, 108-109, 107-108, 98-99, p. 86.

⁷ Ibid., p. 120, pp. 128-129, 130-131, p. 132, 172, pp. 189-190, p. 217, pp. 237-238, 260-261, p. 262, pp. 264-265.

⁸ Ibid., pp. 140-143, 157-161, 164-167, 182-183, 184-185, 189-190, 191-192, p. 192, 201, 216, pp. 216-219, 230-233, 259-263, 263-265, 272-273, 134-140, 143-144, 144-155, p. 155, pp. 155-157, 162-163, p. 163, pp. 167-171, p. 171, pp. 171-173, 173-174, 174-175, 175-181, 181-182, 183-184, 185-189, 190-191, 195-201, 201-213, p. 213, pp. 214-216, 219-230, 233-234, 239-246, 246-259, 265-266, 266-267, 267-272, 273-274.

⁹ Ibid., pp. 144-155.

¹⁰ Ibid., pp. 134-140, p. 155, 163.

¹¹ Goitein, A Mediterranean Society, Vol II, pp. 260-261.

¹² Dols, Medicine, p. 27.

¹³ Ibn Abi Usaybi'a, Uyūn al-'Anbā', Vol. II, p. 87, pp. 98-99, 105-106, 106-107, 108-109, 109-112, 112-115, p. 119, 120, 122, 123, pp. 131-132, 132-133, p. 99, pp. 99-105.

¹⁴ Goitein, A Mediterranean Society, Vol. II, p. 248.

¹⁵ Ibn 'Abī Uṣaybi'a, Uyūn al-'Anbā', Vol. II, p. 101.

¹⁶ Hamarnah, Health Sciences, Vol. I, p. 194.

¹⁷ Ibid., p. 194.

¹⁸ Ibn 'Abī Uṣaybi'a, Uyūn al-'Anbā', Vol. II, p. 109.

¹⁹ Goitein, A Mediterranean Society, Vol. II, p. 248.

²⁰ Ibn 'Abī Uṣaybi'a, Uyūn al-'Anbā', Vol. II, pp. 134-140, 140-143, p. 143, 155, pp. 161-162, 162-163, p. 163, 171, pp. 173-174, 175-181, 181-182, p. 183, pp. 183-184, 184-185, 185-189, 189-190, 190-191, 191-192, 192-195, 195-201, p. 201, pp. 201-213, p. 213, pp. 213-214, p. 216, pp. 216-219, 219-230, 233-234, 239-246, 246-259, 259-263, p. 263, pp. 263-265, 265-266, 266-267, 273-274.

²¹ Ibid., p. 155.

²² Ibid., pp. 239-241.

²³ Ibid., pp. 245-247.

²⁴ Ibid., p. 247.

²⁵ Ibid., pp. 259-276.

²⁶ Ibid., pp. 299-301.

²⁷ Ibid., pp. 23-30.

²⁸ Ibid., pp. 112-115.

²⁹ Ibid., p. 118.

³⁰ Ibid., p. 120.

³¹ Ibid., p. 118.

³² Ibid., p. 112.

³³ Ibid., pp. 115-116.

³⁴ Goitein, A Mediterranean Society, Vol. II, p. 251.

³⁵ Ibid., p. 251.

³⁶ Ibn 'Abī Uṣaybi'a, Uyūn al-'Anbā', Vol. II, p. 155.

³⁷ Ibid., pp. 195-201.

³⁸ Ibid., p. 201.

³⁹ Ibid., p. 201.

⁴⁰ Ibid., p. 190.

⁴¹ Ibid., pp. 191-192.

⁴² Ibid., pp. 213-214.

⁴³ Ibid., pp. 219-230.

⁴⁴ Ibid., pp. 239-246.

⁴⁵ Ibid., pp. 266-267.

⁴⁶ Ibid., pp. 267-272.

⁴⁷ Ibid., pp. 184-185.

⁴⁸ Ibid., p. 192.

⁴⁹ Ibid., pp. 216-219.

⁵⁰ Ibid., pp. 259-263.

⁵¹ Ibid., pp. 192-195.

⁵² Ibid., pp. 155-157.

⁵³ Ibid., pp. 157-161.

⁵⁴ Ibid., pp. 99-105.

⁵⁵ Ibid., pp. 87-89.

⁵⁶ Ibid., p. 89.

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- ⁵⁷ Ibid., p. 115.
- ⁵⁸ Ibid., p. 118.
- ⁵⁹ Ibid., p. 118.
- ⁶⁰ Ibid., pp. 121-122.
- ⁶¹ Ibid., pp. 112-115.
- ⁶² Ibid., pp. 123-130.
- ⁶³ Ibid., p. 89.
- ⁶⁴ Ibid., pp. 175-181.
- ⁶⁵ Ibid., pp. 155-157.
- ⁶⁶ Ibid., pp. 213-214.
- ⁶⁷ Ibid., pp. 213-214.
- ⁶⁸ Ibid., pp. 239-246.
- ⁶⁹ Ibid., pp. 246-259.
- ⁷⁰ Ibid., pp. 233-234.
- ⁷¹ Ibid., pp. 201-213.
- ⁷² Ibid., pp. 214-216.
- ⁷³ Ibid., pp. 192-195.
- ⁷⁴ Ibid., pp. 163-164.
- ⁷⁵ Ibid., pp. 140-143.
- ⁷⁶ Ibid., pp. 167-171.
- ⁷⁷ Hamarnah, Health Sciences, Vol. I, p. 144.

⁷⁸ Ibn 'Abī Uṣaybi'a, 'Uyūn al-'Anbā', Vol. II, p. 87, pp. 87-89, p. 89, pp. 115-116, 116-117, p. 117, p. 120, 133.

⁷⁹ Hamarnah, Health Sciences, Vol. I, p. 144.

⁸⁰ Ibn 'Abī Uṣaybi'a, 'Uyūn al-'Anbā', Vol. II, pp. 155-157, 157-161, 182-183, 219-230, 239-246, 246-259, 259-263, 216-219, p. 213, pp. 275-181.

⁸¹ Ibid., p. 247.

⁸² Hamarnah, Health Sciences, Vol. II, p. 144.

⁸³ Goitein, A Mediterranean Society, Vol II, p 258.

⁸⁴ Ibid., p. 258.

⁸⁵ Ibn Abi Uṣaybi'a, 'Uyūn al-'Anbā', Vol. II, p. 86, pp. 86-87, 90-98, 99-105, 120-121, p. 133, pp. 117-118.

⁸⁶ Goitein, A Mediterranean Society, Vol II, p 258.

⁸⁷ Ibn 'Abī Uṣaybi'a, 'Uyūn al-'Anbā', Vol. II, pp. 134-140, 140-143, p. 115, pp. 155-157, 157-161, p. 163, 171, pp. 171-173, 174-175, 181-182, 183-184, 185-189, 189-190, 190-191, 191-192, p. 192, pp. 192-195, p. 201, 213, pp. 219-230, 233-234, 234-239, 246-259.

⁸⁸ Hamarnah, Health Sciences, Vol. I, pp. 113-121

⁸⁹ Ibn 'Abī Uṣaybi'a, 'Uyūn al-'Anbā', Vol. II, p. 119.

⁹⁰ Ibid., pp. 102-103.

⁹¹ Ibid., pp. 209-210.

⁹² Ibid., pp. 251-255.

⁹³ Ibid., p. 91

⁹⁴ Ibid., p. 99

⁹⁵ Ibid., p. 108

⁹⁶ Ibid., p. 108

⁹⁷ Ibid., p. 113

⁹⁸ Ibid., p. 133

⁹⁹ Ibid., p. 136

¹⁰⁰ Ibid., p. 164

¹⁰¹ Ibid., p. 171

¹⁰² Ibid., p. 178

¹⁰³ Ibid., p. 187

¹⁰⁴ Ibid., p. 191

¹⁰⁵ Ibid., p. 207

¹⁰⁶ Ibid., p. 265

¹⁰⁷ Ibid., p. 273

¹⁰⁸ Ibid., p. 239

¹⁰⁹ Ibid., p. 266

¹¹⁰ Ibid., p. 236

¹¹¹ Ibid., p. 219

CONCLUSION

The analysis of the last two chapters in ibn 'Abī Uṣaybi'a's biographical dictionary, Uyūn al-'Anbā', provided the reader with a more precise and balanced picture of the life of physicians and how they practised medicine in the Egyptian and Syrian context during the Fatimid and Ayyubid periods. Summing up the information deduced in this research, one finds that the medical profession, as gleaned from both Egyptian and Syrian samples, transcended the barriers of religion. It was open to Muslims and non-Muslims alike. Among the latter group, Jews seem to have played a major role in the field of medicine. Nevertheless, unlike what Goitein and Dols stated, the medical profession did not transcend the geographical barriers. It was more or less restricted by the political boundaries of the Fatimid and Ayyubid states. As for the few cases in which physicians appeared to have travelled outside Egypt and Syria, these did not go beyond Persia and Iraq. Based on our data, many of the physicians under consideration belonged to families of physicians in which the father,

brother, or uncle were practising medicine. However, famous families of physicians did not monopolize the practice of medicine, for we have seen cases showing that physicians could come from different social backgrounds. Women, contrary to what Khayrallāh and Yaḥyā Sharīf argued, did not appear as physicians in the work of ibn 'Abī Usaybi'a. Even in the rare cases in which our author mentioned women, he did so in a negative sense. Most of the physicians included in the work of ibn 'Abī Usaybi'a were described as atibba al-khāssa, physicians of the elite, and almost all of them were members of the rulers' entourage. They were so close to the ruling elite that, in some cases, they became part of the power structure. This close relation of physicians to the political elite greatly influenced the economic status of physicians, as they were generously remunerated for the services they rendered to the rulers.

Regarding the training and practice of the medical profession, physicians seem to have received a basic training in the Greek medical literature. Books of Hippocrates and Galen were most widely used by medical students in Egypt and Syria during the period under study,

which confirms the information collected by Dols. Furthermore, physicians also tended to study other religious and secular sciences besides medicine, and philosophy appeared to be the major ingredient in the education of our physicians. Physicians under consideration acquired knowledge and practical skills in medicine by means of private tutoring. Usually the physicians studied under the supervision of one or more tutors. In some cases, physicians were tutored by their fathers, brothers or uncles. The two other methods of education that are mentioned in secondary sources, tutoring in hospitals and tutoring in medical colleges, do not seem to be the common practices adopted by the physicians under consideration. It is only in the case of the Syrian physician Abū'l-Majd ibn Abī'l-Hakam that we know of tutoring in hospitals. The hospital, however, was the most common place in which most of our physicians practised medicine. Only in a few cases, physicians are mentioned to practise medicine in the clinic (ḍukkān). In their practice of medicine, physicians seem to have refined their methods of diagnosis, by using their medical expertise, as well as their psychological insights in order to diagnose illnesses. Furthermore,, physicians

preferred to treat their patients by means of drugs rather than surgery. They composed simple and compound drugs by using natural ingredients and herbs. They wrote specialized treatises on the different uses of herbs in the treatment of different diseases; it is in this field that physicians, during the period under study, seem to have made their most original contribution.¹ Physicians did not seem to follow narrow medical specializations, but different kinds of diseases were treated by the same physician. Even though, there was an overlapping between the various branches in the medical practice, a number of physicians appear to have specialized in the medical fields of ophthalmology, surgery, pharmacology and botany.

In general, it was not common among physicians under study to engage in other occupations besides medicine. This contradicts what Goitein said about physicians' engagement in business on the side. A very small number of our physicians occupied another occupation besides medicine. It is clear that most of the physicians under consideration were well off, and did not need to engage in other

¹ Khayrallah, *Outline to Medicine*, pp. 148-150

occupations to gain more money. Furthermore, because of the close relation of most of our physicians to the power structure, they did not seem to come under the authority of the muhtasib, whose role in controlling the medical profession was emphasized in many secondary sources. Finally, our physicians enriched Muslim society by a wealth of medical literature, as they wrote extensively in various fields and subjects within that discipline. Data relating to their intellectual practices and training show that they were a highly-cultured group, who contributed to the various intellectual disciplines which existed in their cultures.

All the above helps the reader to form a clearer picture of the life of physicians. However, it should be noted that analysis of the data in ibn 'Abī Uṣaybi'a's work was a difficult task. Despite the unsystematic and diverse nature of the information included in the work, one can argue that ibn 'Abī Uṣaybi'a, as a biographer of physicians, stressed what he thought was important to record in his biographical entries. This might be the reason why we get more information on the political and professional status of physicians, and less on their family or social backgrounds.

Throughout this research, it was difficult to make general conclusions because of the tiny sample studied. Our sample is not representative of the whole population of physicians in Egyptian and Syrian societies. Ibn 'Abī Uṣaybi-a seems to have been more interested in selecting physicians who belonged to the category of atibba al-khāṣṣa, which does not help us in knowing much about the average male or female physicians who practised medicine among the common classes of society. In spite of these inadequacies in the work of ibn 'Abī Uṣaybi-a, it can be still considered the most comprehensive work that covers the history of medicine in medieval Islamic society. It serves as an indispensable source for the study of the life of physicians and the historical development of the medical profession from the Greek period to the middle of 660/1260. Furthermore, the book is written in a clear and interesting style. Ibn 'Abī Uṣaybi-a included in his biographies poetry, anecdotal stories and humorous quotations, all of which makes his work interesting and delightful to read.

Finally, I hope that this exercise in the use of ibn 'Abī Uṣaybi-a's biographical dictionary will inspire other

researchers in their work. I have only used two sections of his work, and hopefully, future research will tap the rich data that still remain unused in that valuable work.

APPENDIX I

A. Names of Egyptian Physicians by Chronological Order:

1. Ishāq b. Ibrāhīm b. Nustās (n.d.)
2. Mūsā b. al-ʿAzār al-Isrāʾīlī (d. 363 H)
3. Yūsuf al-Nusrānī (n.d.)
4. Saʿīd b. al-Baṭriq (d. 328 H)
5. ʿIsā b. al-Baṭriq (n.d.)
6. ʿAyūn b. ʿAyūn (d. 385 H)
7. Al-Tamīmī (n.d.)
8. Sahlān (d. 380 H)
9. Abu'l-Fath Mansūr b. Sahlān (n.d.)
10. ʿAmmār b. ʿAlī al-Mūsili
11. Al-Ḥaqīr al-Nāfiʿ (n.d.)
12. Abū Bishr Ṭabīb al-ʿUḏayimiyyah (n.d.)
13. Ibn Muqashar al-Ṭabīb (n.d.)
14. ʿAlī b. Sulaymān (n.d.)
15. Ibn al-Haytham (d. 430 H)
16. Al-Mubāshir b. Fātik (n.d.)
17. Ishāq b. Yūnus (n.d.)
18. ʿAlī b. Ridwān (n.d.)
19. Ifrāīm b. al-Zaffān (n.d.)

20. Salāma b. Raḥmūn (n.d.)
21. Mubārak b. Salāma b. Raḥmūn (n.d.)
22. Ibn al-ʿAyn Zarbī (n.d.)
23. Bilmuẓaffar b. Muʿarrāf (n.d.)
24. Al-Shaykh al-Sadīd Abū'l-Mansūr ʿAbdullāh (d. 592 H.)
25. Ibn Jumayʿ (n.d.)
26. Abū'l Faḍā'il b. al-Nāqid (n.d.)
27. Al-Rā'is Hibatullāh (d. 580 H.)
28. Al-Muwaffaq b. Shūʿah (d. 579 H.)
29. Abū'l-Barakāt al-Qaḍāʿī (d. 598 H.)
30. Abū'l-Maʿālī b. Tammām (n.d.)
31. Al-Rā'is Mūsā b. Maymūn (n.d.)
32. Ibrāhīm b. al-Rā'is Mūsā (d. 63 H.)
33. Abū'l-Barakāt b. Shaʿya (n.d.)
34. Al-Asʿad al-Maḥallī (n.d.)
35. Al-Shaykh al-Sadīd b. Abī'l-Bayān (n.d.)
36. Jamāl al-Dīn Abī'l Ḥawāfir (d. 595 H.)
37. Faṭḥ al-Dīn b. Jamāl al-Dīn b. Abī'l-Ḥawāfir (n.d.)
38. Shihāb al-Dīn b. Faṭḥ al-Dīn (n.d.)
39. Al-Qāḍī Nafīs al-Dīn b. al-Zubayr (d. 636 H.)
40. Afdal al-Dīn al-Khunnjī (d. 646 H.)
41. Abū Sulaymān Dāwūd b. Abī'l Munā (n.d.)

42. Abū Saʿīd b. Abī Sulaymān (d. 613 H.)
43. Abū Shākir b. Abī Sulaymān (d. 613 H.)
44. Abū Naṣr b. Abī Sulaymān (n.d.)
45. Abū'l-Faḍl b. Abī Sulaymān (d. 644 H.)
46. Rāshid al-Dīn Abū Ḥalīqah (n.d.)
47. Muḥadhdhab al-Dīn Abū Saʿīd Muḥammad b. Abī
Ḥalīqah (n.d.)
48. Rāshid al-Dīn Abu Saʿīd (d. 646 H.)
49. Asʿad al-Dīn b. Abī'l-Ḥassan (d. 653 H.)
50. Diyā' al-Dīn b. al-Bayṭār (d. 646 H.)

B. Names of Syrian Physicians by Chronological Order:

1. Abū'l-Naṣr al-Fārābī (d. 339 H.)
2. ʿIsā al-Ruqīyy (n.d.)
3. Al-Bayrūdī, Abul-Faraj Guirguis b. Yuhannā b. Sahl
(n.d.)
4. Jābir b. Mansūr al-Sukkarī (n.d.)
5. Zāfir b. Jābir al-Sukkarī (n.d.)
6. Mawhūb b. Zāfir (n.d.)
7. Jābir b. Mawhūb (n.d.)
8. Abū'l-Ḥakam (d. 549 H.)
9. Abū'l-Majd b. Abi'l-Ḥakam (d. 5xx H.)
10. Ibn al-Badhūkh (d. 576 H. or 575 H.)
11. Ḥakim al-Zamān ʿAbd al-Munʿim al-Jiliānī (d. 6xx
H.)
12. Abū'l-Faḍl b. Abi'l Waqqār (d. 554 H.)
13. Muḥadhab al-Dīn b. al-Naqqāsh (d. 574 H.)
14. Abū Zakariyya Yaḥyā al-Bayyāsī (n.d.)
15. Sukrah al-Ḥalabī (n.d.)
16. ʿAfīf b. Sukrah (n.d.)
17. Ibn al-Ṣalāḥ (d. 540 H.)
18. Shihāb al-Dīn al-Suhrawardī (d. 586 H.)
19. Shams al-Dīn al-Khūwī (d. 637 H.)

20. Rāfī al-Dīn al-Jilī (d. 641 H.)
21. Shams al-Dīn al-Khusrushāhī (d. 652 H.)
22. Sayf al-Dīn al-Āmidī (n.d.)
23. Muwaffaq al-Dīn b. al-Muṭrān (d. 587 H.)
24. Muhadhdhab al-Dīn b. al-Ḥajib (n.d.)
25. Al-Sharīf al-Kaḥḥāl (n.d.)
26. Abu'l-Mansūr al-Nuṣrānī (n.d.)
27. Abu'l-Nijm al-Nuṣrānī (d. 599 H.)
28. Abu'l-Faraj al-Nuṣrānī (n.d.)
29. Fakhr al-Dīn al-Sā'atī (n.d.)
30. Shams al-Dīn al-Labūdī (d. 621 H.)
31. Al-Ṣāhib Nijm al-Dīn al-Labūdī (n.d.)
32. Zayn al-Dīn al-Ḥāfizī (n.d.)
33. Abu'l-Faḍl b. 'Abd al-Karīm al-Muhandis (d. 599 H.)
34. Muwaffaq al-Dīn 'Abd al-'Azīz (d. 604 H.)
35. Sa'd al-Dīn b. 'Abd al-'Azīz (d. 644 H.)
36. Raḍiyy al-Dīn al-Raḥbī (d. 631 H.)
37. Sharaf al-Dīn al-Raḥbī (d. 667 H.)
38. Jamāl al-Dīn al-Raḥbī (d. 658 H.)
39. Kamāl al-Dīn al-Ḥumṣī (d. 621 H.)
40. Muwaffaq al-Dīn 'Abd al-Laṭīf al-Baghdādī (n.d.)
42. Abu'l-Hajjāj Yūsuf al-Isrā'īlī (n.d.)
42. 'Umrān al-Isrā'īlī (d. 637 H.)

43. Mūwaffaq al-Dīn Ya-qūb b. Ṣuqlāb (n.d.)
44. Sadīd al-Dīn Abū Maṣṣūr (n.d.)
45. Rāshid al-Dīn b. al-Sūrī (d. 639)
46. Sadīd al-Dīn b. Raqīqah (d. 635 H.)
47. Ṣaddaḡah al-Sāmīrī (d. 620 H.)
48. Muḡadhab al-Dīn Yūsuf b. Abī Sa-īd (d. 624 H.)
49. Al-Ṣaḡhib Amīn al-Dawlah (n.d.)
50. Muḡadhab al-Dīn ʿAbd al-Raḡīm b. ʿAlī (d. 628 H.)
51. Rāshid al-Dīn ʿAlī b. Khalīfah (n.d.)
52. Badr al-Dīn b. Qādī Ba-albak (n.d.)
53. Shams al-Dīn Muḡammad al-Kūlī (n.d.)
54. Mūwaffaq al-Dīn b. ʿAbd al-Salām (n.d.)
55. Mūwaffaq al-Dīn b. al-Munfākh (d. 642 H.)
56. Naḡjm al-Dīn b. al-Munfākh (d. 652 H.)
57. ʿIzz al-Dīn al-Suwaydī (n.d.)
58. ʿImād al-Dīn al-Dinisīrī (n.d.)
59. Mūwaffaq al-Dīn Ya-qūb al-Sāmīrī (d. 680 H.)
60. Abū'l-Faraj b. al-Quff (d. 685 H.)

APPENDIX II

I. Books Produced by Egyptian Physicians:

١- موسى بن العازار:

- كتاب المغربي في الطب
- مقاله في السعال
- كتاب الأقرباديين

٢- سعيد بن البطريق:

- كتاب في الطب علم وعمل
- كناش
- كتاب الجدل بين المخالف والنصراني
- كتاب في معرفة صوم النصارى وفطرهم وتواريخهم وأعيادهم وتواريخ الخلفاء والملوك المتقدمين، وذكر البطارقة وأحوالهم ومدة حياتهم

٣- أعين بن أعين:

- كناش
- كتاب في أمراض العين ومداواتها

٤- التميمي:

- في صناعة الترياق الفاروق ونعت أشجاره الصحيحة وأوقات جمعه وكيفية عجنه وذكر منافعه وتجربته
- كتاب في مادة البقاء بإصلاح فساد الهواء والتحرز من

ضرر الأوباء

- مقالة في ماهية الرمد وأنواعه وأسبابه وعلاجه
- كتاب الفحص والأخبار

ه- عمار بن علي الموصلي:

- كتاب المنتخب في علم العين ومداواتها بالأدوية والحديد

٦- علي بن سليمان:

- اختصار كتاب الحاوي في الطب
- كتاب الأمثال الشعبية والتجارب والأخبار والنكت
- الخواص الطبية المنتزعة من كتب أبقراط وجالينوس
- تذكرة له ورياضة
- كتاب التعاليق الفلسفية
- مقالة في أن قبول الجسم التجراً لا يقف ولا ينتهي إلى ما لا يتجرأ
- تعديد شكوك في كواكب الذنب

٧- ابن الهيثم:

- كتاب السماع الطبيعي
- كتاب الكون والفساد
- كتاب في الآثار والعلوية
- كتاب في النبات والحيوان
- كتاب في السماء والعالم
- كتاب في النفس
- كتاب في مابعد الطبيعة

في العلوم الرياضية كتب خمسة وعشرين كتاباً:

- شرح أصول أوقليدس في الهندسة والعدد وتلخيصه
- كتاب جمع فيه الأصول الهندسية والعددية من كتاب أوقليدس وأبلونيوس
- شرح المجسطر وتلخيصه
- الكتاب الجامع في أصول الحساب
- كتاب لخص فيه علم المناظر من كتاب أوقليدس وبطليموس
- كتاب في تحليل المسائل الهندسية
- كتاب في تحليل المسائل العددية
- كتاب جمع فيه القول على تحليل المسائل الهندسية والعددية
- كتاب في المساحة على جهة الأصول
- كتاب في حساب المعاملات
- مقالة في أجازات الحفور والأبنية بجميع الأشكال الهندسية
- تلخيص مقالات أبلونيوس في قطوع المخروطات
- مقالة في الحساب الهندي
- مقالة في استخراج سمت القبلة في جميع المسكونة
- مقالة فيما تدعو اليه حاجة الأمور الشرعية من الأمور الهندسية.
- رسالة الى بعض الرؤساء في المبحث على الرصد النجومي
- كتاب المدخل الى الأمور الهندسية
- مقالة في انتزاع البرهان على أن القطع الزائد والخطان الذان لا يلقانه يغتربان أبداً ولا يلتقيان

- أجوبة سبع مسائل تعليمية
- كتاب في التحليل والتركيب الهندسيين على جهة التمثيل للمتعلمين
- كتاب في آلة الظل
- مقالة في استخراج ما بين بلدين في البعد بجهة الأمور الهندسية
- مقالة في أصول المسائل العددية الصم وتحليلها
- مقالة في حل شك ردا على أوقليدس في المقالة الخامسة من كتابه في الأصول الرياضية
- رسالة في برهان الشكل الذي قدمه أرشميدس في قسمة الزاوية ثلاثة أقسام ولم يبرهن عليه
- في العلوم الطبيعية والإلهية، كتب أربعة وأربعين كتابا:

- تلخيص مدخل فرفوريس وكتب أرسطوطاليس الأربعة المنطقية
- اختصار تلخيص مدخل فرفوريس وكتب أرسطوطاليس السبعة المنطقية
- رسالة في صناعة الشعر المترجمة من اليوناني إلى العربي
- تلخيص كتاب التعس لأرسطوطاليس
- مقالة في مشاكل العالم الجزئي، وهو الإنسان للعالم الكلي
- مقالة في القياس وسببه
- مقالة في البرهان
- مقالة في العالم من جهة مبدئه وطبيعته وكماله
- مقالة في هيئة العالم
- كتاب الرد على يحيى النحوي ومانقظه على أرسطوطاليس

- وغيره من أقوالهم في السماء والعالم
- رسالة الى بعض من نظر في هذا النقض في معاني منه
- في حل شكوكه ومعرفة ذلك من فهمه
- كتاب في الرد على أبي الحسن علي بن العباس بن فأنجس نقضه آراء المنجمين
- مقالة في الفضل والفاضل
- مقالة في تشويق الإنسان الى الموت بحسب كلام الأوائل
- رسالة أخرى في هذا المعنى بحسب كلام المحدثين
- رسالة في بطلان ما يراه المتكلمون من أن الله لم يزل غير فاعل ثم فعل
- مقالة في خارج السماء، لا فراغ ولا ملاء
- مقالة في الرد على أبي هاشم رئيس المعتزلة
- ما تكلم به على جوامع كتاب السماء والعالم لأرسطوطاليس
- قول في تباين مذهبي الجبريين والمنجمين
- تلخيص المسائل الطبيعية لأرسطوطاليس
- رسالة في تفضيل الأهواز على بغداد من جهة الأمور الطبيعية
- رسالة الى كافة أهل العلم في معنى شاغب شاغبة
- مقالة في أن جهة إدراك الحقائق جهة واحدة
- مقالة في أن البرهان معنى واحد وإنما يستعمل صناعيا في الأمور الهندسية، وكلاميا في الأمور الطبيعية والإلهية
- مقالة في طبيعتي الألم واللذة
- مقالة في طبائع اللذات الثلاث الحسية والنطقية والمعادلة
- مقالة في اتفاق الحيوان الناطق على الصواب مع

- اختلافهم في المقاصد والأغراض
- رسالة في أن بهان الخلف يصير برهان استقامة محددة واحدة
 - كتاب في تثبيت أحكام النجوم بجهة البرهان
 - رسالة في الأعمار والأجال الكونية
 - رسالة في طبيعة العقل
 - كتاب في النقض على من رأى أن الأدلة متكافئة
 - قول في إثبات عنصر الامتناع
 - نقض جواب مسألة سأل عنها بعض المعتزلة بالبصرة
 - كتاب في صناعة الكتابة على أوضاع الأوائل وأصولهم
 - عهد الى الكتابة
 - مقالة في أن فاعل هذا العالم إنما يعلم ذاته من جهة مفعله
 - جواب لبعض المنطقيين في معان خالف فيها من الأمور الطبيعية
 - رسالة في تلخيص جوهر النفس الكلية
 - في تحقيق رأي أرسطوطاليس أن القوة المدبرة هي من بدن الإنسان في القلب منه
 - رسالة في جواب مسألة سئل عنها ابن السمع البغدادي المنطقي فلم يجب عنها جواباً مقنعاً
 - كتاب في تقويم الصناعة الطبية

٨- المبشر بن فاتك:

- كتاب الوصايا العشر والأمثال والموجز من محكم الأقوال
- كتاب مختار الحكم ومحاسن الكلم
- كتاب في الطب
- كتاب البداية في المنطق

٩- علي بن رضوان:

- شرح كتاب العطق لجالينوس
- شرح كتاب الصناعة الصغيرة لجالينوس
- شرح كتاب البيض الصغير لجالينوس
- شرح كتاب جالينوس إلى أغلوقن في التأني لشفاء الأمراض
- شرح المقالة الأولى في خمس مقالات
- شرح المقالة الثانية في مقالتين
- شرح بعض كتاب المزاج لجالينوس
- كتاب الأصول في الطب
- كناشر، رسالة في علاج الجذام
- كتاب تتبع مسائل حنين، مقالتين
- كتاب النافع في كيفية صناعة الطب، ثلاث مقالات
- مقالة في أن جالينوس لم يغلط في أقاويله في اللبن على ما ظنه قوم
- مقالة في دفع المضار عن الأبدان بمصر
- مقالة في سيرته
- مقالة في الشعير وما يعمل منه
- جوابه لمسائل في لبن الاتن
- تعاليق طبية
- تعاليق نقلها في صيدلية الطب، مقالة في مذهب أبقراط في تعليم الطب
- كتاب في أن أفضل أحوال عبد الله بن الطيب المحالي السوفسطائية، وهو خمس مقالات
- كتاب في أن الأشخاص كل واحد من الأنواع المتناسلة أب أول منه تناسلت الأشخاص على مذهب الفلسفة
- تفسير مقالة الحكيم فيثاغورس في الفضيلة

- مقالة في الرد على إفرايم وابن زرعة في الاختلاف في الملل
- إنتراعات شروح جالينوس لكتب أبقراط
- كتاب الانتصار لأرسطوطاليس، وهو كتاب التوسط بينه وبين خصومه المناقضين له في السماع الطبيعي
- تفسير ناموس الطب لأبقراط
- تفسير وصية أبقراط المعروفة بترتيب الطب
- كلام في الأدوية المسهلة
- كتاب في عمل الأشربة والمعاجين
- تعليق من كتاب التميمي في الأغذية والأدوية
- تعليق من كتاب فوسيدونيوس في أشربة لذيدة للأصحاء
- فوائد علقها من كتاب فيلغربوس في الأشربة النافعة للذيدة في أوقات الأمراض
- مقالة في الباء، مقالة في أن كل واحد من الأعضاء يغتذي من الخلط المشاكل له
- مقالة في الطريق إلى إحصاء عدد الحميات
- فصل من كلامه في القوى الطبيعية، جواب مسائل في النبض وصل إليه السؤال عنها من الشام
- رسالة في أجوبة مسائل سأل عنها الشيخ أبو الطيب أزهري بن النعمان في الأورام
- رسالة في علاج صبي أصابه المرض المسمى بداء الفيل وداء الأسد
- نسخة الدستور الذي أنقذه أبو العسكر الحسين بن معدان ملك مكران في حالة علة الفالج في شقه الأيسر وجواب ابن رضوان له
- فوائد علقها من كتاب حيلة البرء لجالينوس
- فوائد علقها من كتاب الفصد لجالينوس
- فوائد علقها من كتاب الميامر لجالينوس
- فوائد علقها من كتاب قاطاجاس لجالينوس
- فوائد علقها في الأخلاط من كتب عدة لأبقراط وجالينوس

- كتاب في حل شكوك الرازي على كتب جالينوس، سبع مقالات
- مقالة في حفظ الصحة
- مقالة في أدوات الحميات
- مقالة في التنفس السديد وضيق التنفس
- رسالة كتب بها الى أبي زكريا يهوذا ابن سعادة في النظام الذي استعمله جالينوس في تحليل الحاد في كتابه المسمى "الصناعات الصغيرة"
- مقالة في نقض مقالة ابن بطلان في الفرخ والفروخ
- مقالة في الفأر
- مقالة فيما أورده ابن بطلان من التحبيرات
- مقالة في أن ماجهله يقين وحكمة، وما علمه ابن بطلان غلط وسفسطة
- مقالة في أن بطلان لا يعلم كلام نفسه فضلاً عن كلام غيره
- رسالة الى أطباء مصر والقاهرة في خبر ابن بطلان
- قول له في جملة الرد عليه
- كتاب في مسائل جرت بينه وبين ابن الهيثم في المجرة والمكان
- إخراجة لمخاوش كامل الصناعة الطبية الموجود منه بعض الأولى
- رسالة في أزمة الأمراض
- مقالة في التطرق بالطب الى السعادة
- مقالة في انسياب مدد حميات الاخلاط وقرائنها
- جوابه عما شرح له من حال عليل به علة الفالج في شقه الأيسر
- مقالة في الأورام
- كتاب في الأدوية المفردة على حروف المعجم
- مقالة في شرف الطب
- رسالة في الكون والفساد

- مقالة في سبيل السعادة وهي السيرة التي اختارها لنفسه
- رسالة في بقاء النفس بعد الموت
- مقالة في فضيلة الفلسفة
- مقالة في بناء النفس على رأي أفلاطن وأرسطوطاليس
- مقالة في الحر
- أجوبته لمسائل منطقية من كتاب القياس
- مقالة في حل شكوك يحيى بن عدي المسماة بالمحركات
- مقالة في بعث نبوة محمد صلى الله عليه وسلم من التوراة والفلسفة
- مقالة في أن في الوجود نقط وخطوط طبيعية
- مقالة في حدث العالم
- مقالة في التنبيه على حيل من ينتحل صناعة القضايا بالنجوم
- وتشرف أهلها
- مقالة في خلط الضروري والوجودي
- مقالة في اكتساب الحلال من المال
- مقالة في الفرق بين الفاضل من الناس والسديد والعطب
- مقالة في كل السياسة
- رسالة في السعادة
- مقالة في اعتذاره عما ناقض به المحدثين
- مقالة في توحيد الفلاسفة وعبادتهم
- كتاب في الرد على الرازي في العلم الإلهي وإثبات الرسل
- كتاب المستعمل من المنطق في العلوم والصنائع، ثلاث مقالات
- رسالة صغرى في الصيولي، صنفها لابي سليمان بن بابشاد
- تذكراته المسماة بالكمال والكمال والسعادة القصوى غير كاملة
- تعاليقه لفوائد كتب أفلاطن المساجرة لهوية طبيعة الإنسان
- تعاليق مدخل فرفوربيوس

- تهذيب كتاب الحابس في رياضة الثنا الموجود منه بعض لا كل
- تعاليق في أن خط الاستواء بالطبيع أظلم ليلاً، وأن جوهره بالفرض أظلم ليلاً
- كتاب فيما ينبغي أن يكون في حانوت الطبيب، أربع مقالات
- مقالة في هواء مصر
- مقالة في مزاج السكر
- مقالة في التنبيه على ما في كلام ابن بطلان من الهديان
- رسالة في دفع مضار الحلوى بالمحرور

١٠- إفرائيم بن الزفان:

- تعاليق وحجريات جعلها على جهة الكناش
- كتاب التذكرة الطبية في مصلحة الأحوال الدينية
- مقالة في التقرير القياسي على أن البلغم يكثر تولده في الصيف، الدم والمرار الأصفر في الشتاء

١١- سلامة بن رحمون:

- كتاب نظام الموجودات
- مقالة في السبب الموجب لقلة المطر في مصر
- مقالة في العلم الإلهي
- مقالة في خصب أبدان النساء بمصر عند تناهي السباب

١٢- مبارك بن سلامة بن رحمون:

- مقالة في الجمرة المسماة بالشفقة والخزفة مختصرة

١٣- ابن العين زربي:

- كتاب الكافي في الطب
- شرح كتاب "الصناعة الصغيرة" لجالينوس
- الرسالة المقنعة في المنطق
- مجربات في الطب على جهة الكناش
- رسالة في السياسة
- رسالة في تعذر وجود الطبيب الفاضل ونفاق الجاهل
- مقالة في الحصى وعلاجه

١٤- بلمظقر بن معروف:

- تعاليق في الكيمياء
- كتاب في علم النجوم
- مختارات في الطب

١٥- ابن جميع:

- كتاب الإرشاد لمصالح الانفس والأجساد، أربع مقالات
- كتاب التصريح بالمكنون في تنقيح القانون
- رسالة في طبع الإسكندرية وحال هوائها ومياهها ونحو ذلك من أحوالها وأحوال أهلها
- رسالة إلى القاضي المعين أبي القاسم علي بن حسين فيما يعتمد عليه حيث لا يجد طبيباً
- مقالة في الليمون وشرابه ومنافعه
- مقالة في الراوند ومنافعه

- مقالة في الحذبة
- مقالة في علاج القولنج، واسمها الرسالة السيفية في
- الأدوية الملوكية

١٦- أبوالبیان المدور:

- مجرباته في الطب

١٧- أبو الفضائل بن الناقد:

- مجرباته في الطب

١٨- أبوالمعالی بن تمام:

- تعاليق ومجرباته في الطب

١٩- الرئيس موسى بن ميمون:

- اختصار الكتب الستة عشر لمجالينوس
- مقالة في البواسير وعلاجها
- مقالة في تدبير الصحة
- مقالة في السموم والتحرر من الأدوية القاتلة
- كتاب شرح العقار
- كتاب كبير على مذهب اليهود

٢٠- الأسعد المحلي:

- مقالة في قوانين الطبيعة

- كتاب المنزه في حل ما وقع من إدراك البصر في المرايا من الشبه
- كتاب في مزاج دمشق ووصفها وتفاوتها من مصر وأنها أصح وأعدل
- وفي مسائل أخرى في الطب وأجوبتها وهو يحتوي على ثلاث مقالات
- مسائل طبية وأجوبتها سألها لبعض الأطباء بدمشق، وهو صدقة بن
- ميخا بن صدقة السامري

٢١- الشيخ السديد أبي البيان:

- كتاب الأقرباديين، وهو اثنا عشر باباً اقتصر على الأدوية المركبة المستعملة في البيمارستانات في مصر والشام والعراق وحوانيت الصيدلة
- تعاليق على كتاب العلل والأعراض لجالينوس

٢٢- أفضل الدين الخونجي:

- شرح مقاله الرئيس ابن سينا في النبض
- مقالة في الحذور والوروم
- كتاب الجمل في علم المنطق
- كتاب كشف الاسرار في علم المنطق
- كتاب الموجز في المنطق
- كتاب أدوات الحميات

٢٣- رشيد الدين أبو حليقة:

- مقالة في حفظ الصحة
- مقالة في أن الملاذ الروحانية ألد من الملاذ الحسانية
- كتاب في الأدوية المفردة، المختار في الألف عقار
- كتاب في الأمراض وأسبابها وعلامتها ومداواتها بالأدوية المفردة والمركبة
- مقالة في ضرورة الموت

٢٤- مهذب الدين أبو حليقة:

- كتاب في الطب

٢٥- رشيد الدين أبوسعيد:

- كتاب في عيون الطب
- تعاليق علي كتاب الحاوي لأبي بكر محمد بن زكريا الرازي في الطب

٢٦- أسعد الدين أبوالحسن:

- كتاب نواذر الالباء في امتحان الاطباء

٢٧- ضياء الدين البيطار:

- كتاب الإبانة والإعلام بما في المنهاج من الخلل والأوهام
- شرح أدوية كتاب دبسقوريدس
- كتاب الجامع في الأدوية المفردة
- كتاب الأفعال الغريبة والخواص العجيبة

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١- أبو النصر الفارابي:

- شرح كتاب المجسطي لبطليموس
- شرح كتاب البرهان لأرسطوطاليس
- شرح كتاب الخطابة لأرسطوطاليس
- شرح المقالة الثانية والثامنة من كتاب المجدل لأرسطوطاليس
- شرح كتاب المغالطة لأرسطوطاليس
- شرح كتاب القياس لأرسطوطاليس وهو الشرح الكبير
- شرح كتاب مارمينياس لأرسطوطاليس على جهة التعليق
- شرح كتاب المقولات لأرسطوطاليس على جهة التعليق
- كتاب المختصر الكبير في المنطق
- كتاب المختصر الصغير في المنطق على طريقة المتكلمين
- كتاب المختصر الأوسط في القياس
- كتاب التوطئة في المنطق
- شرح كتاب إيساغوجي لفرفوريوس
- املاء في معاني إيساغوجي
- كتاب القياس الصغير، ووجد كتابه هذا مترجماً بخطه
- إحصاء القضايا والقياسات التي تستعمل على العموم في جميع الصنائع القياسية
- كتاب شروط القياس
- كتاب البرهان
- كتاب المجدل
- كتاب المواضع المنتزعة من المقالة الثامنة في المجدل
- كتاب المواضع المغلطة

- كتاب اكتساب المقدمات وهي المسماة بالمواضع وهي التحليل
- كلام في المقدمات المختلطة من وجودي وضروري
- كلام في الخلاء صدر لكتب الخطابة
- شرح كتاب السماع الطبيعي لأرسطوطاليس على جهة التعليق
- شرح كتاب السماء والعالم لأرسطوطاليس على جهة التعليق
- شرح كتاب الآثار العلوية لأرسطوطاليس على جهة التعليق
- شرح مقالة الإسكندر الأفروديس في النفس على جهة التعليق
- شرح صدر كتاب الأخلاق لأرسطوطاليس
- كتاب في النواميس
- كتاب إحصاء العلوم وترتيبها
- كتاب الفلسفتين لفلاطن وأرسطوطاليس مخروم الآخر
- كتاب المدينة الفاضلة والمدينة الجاهلة والمدينة الفاسقة والمدينة المبدلة
- والمدينة الضالة
- كتاب مبادئ آراء المدينة الفاضلة
- كتاب الألفاظ والحروف
- كتاب الموسيقى الكبير
- كتاب في إصحاء الإيقاع
- كلام له في النقل مضافاً إليه الإيقاع
- كلام في الموسيقى
- مختصر فصول فلسفية منتزعة من كتب الفلاسفة
- كتاب المبادئ الأساسية
- كتاب الرد على الرازي في العلم الإلهي
- كتاب الرد على جالينوس فيما تأوله من كلام أرسطوطاليس على غير معناه

- كتاب الرد على ابن الراوندي في أدب الجدلة
- كتاب الرد على يحيى النحوي فيما رد به على أرسطوطاليس
- كتاب الرد على الرازي في العلم الإلهي
- كتاب الواحد والواحدة
- كلام في الحيز والمقدار
- كتاب في العقل صغير
- كتاب في العقل كبير
- كلام له في معنى اسم الفلسفة
- كتاب الموجودات المتغيرة الموجودة بالكلام الطبيعي
- كتاب شرائط البرهان
- كلام له شرح المستعلق من مصادره المقالة الأولى والخامسة من اقليدس
- كلام في اتفاق أبقراط وأفلاطن
- رسالة في التنبيه على أسباب السعادة
- كلام في الجزء ومالا يتجزأ
- كلام في اسم الفلسفة وسبب ظهورها بأسماء المبرزين فيها وعلى من قرأ منهم
- كلام في الجن
- كلام في الجوهر
- كتاب في الفحص المدني
- كتاب السياسات المدنية، ويعرف بمبادئ الموجودات
- كلام في الملة والفقه مدني، كلام جمعه من أقاويل النبي صلى الله عليه وسلم يشير فيه الى صناعة المنطق
- كتاب في الخطابة كبير، عشرون مجلدًا
- رسالة في قواد الجيش
- كلام في المعاش والمخروب
- كتاب في التأثيرات العلوية

- مقالة في الجهة التي يصح عليها القول بأحكام النجوم
- كتاب في الفصول المنتزعة للإجتماعات
- كتاب في الحيل والنواميس
- كلام له في الرؤيا
- كتاب في صناعة الكتابة
- شرح كتاب البرهان لأرسطوطاليس على طريق التعليق
- كلام له في العلم الإلهي
- شرح المواضع المستغلقة من كتاب قاطيغورياس لأرسطوطاليس، ويعرف بتعليقات الحواشي
- كلام في أعضاء الحيوان
- كتاب مختصر جمع الكتب المنطقية
- كتاب المدخل الى المنطق
- كتاب التوسط بين أرسطوطاليس وجالينوس
- كتاب عرض المقولات
- كلام له في الشعر والقوافي
- شرح كتاب العبارة لأرسطوطاليس على جهة التعليق
- تعاليق على كتاب القياس
- كتاب في القوة الممتناهية وغير المتناهية
- تعليق له في النجوم
- كتاب في الأشياء التي يحتاج أن تعلم قبل الفلسفة
- مقول له مما جمعه من كلام القدماء
- كتاب في أغراض أرسطوطاليس في كل واحد من كتبه
- كتاب المقاييس
- مختصر كتاب الهدى
- كتاب في اللغات
- كتاب في الاجتماعات المدنية
- كلام في أن حركة الفلك دائمة
- كلام فيما يصلح أن يذم المؤدب
- كلام في المعاليق والجون وغير ذلك

- كلام لي لوازم الفلسفة
- مقالة في وجوب صناعة الكيمياء والرد على مبطلتها
- مقالة في أغراض أرسطوطاليس في كل مقالة من كتابه الموسوم
- بالمحروف، وهو تحقيق غرضه في كتاب مابعد الطبيعة
- كتاب في الدعاوى المنسوبة الى أرسطوطاليس في الفلسفة مجردة عن بياناتها وحجمها
- تعليقات في الحكمة
- كلام أملاه على سائل سألته عن معنى ذات ومعنى جوهر ومعنى طبيعة
- كتاب جوامع السياسة مختصر
- كتاب بايرمينياس لأرسطوطاليس
- كتاب المدخل الى الهندسة الوهمية، مختصراً
- كتاب عيون المسائل على رأي أرسطوطاليس، وهي مائة وستون مسألة
- جوابات لمسائل سئل عنها وهي ثلاث وعشرون مسألة
- كتاب أصناف الأشياء البسيطة التي تنقسم اليها القضايا في جميع الصنائع القياسية
- جوامع كتاب النواميس لفلاطون
- كلام من إملأه وقد سئل عما قاله أرسطوطاليس في الحار
- تعليقات أناطوطيتا الأولى لأرسطوطاليس، كتاب شرح اليقين
- رسالة في ماهية النفس
- كتاب السماع الطبيعي

٢- عيسى الرقي:

- كتب في المذهب

٣- البيرودي:

- مقالة في أن الفرخ أبرد من الفروج

٤- ظافر بن جابر السكري:

- مقالة في أن الحيوان يموت مع أن الغذاء يخلف عوض ما يتحلل منه

٥- موهوب بن ظافر:

- اختصار كتاب المسائل لحنين بن إسحق

٦- أبوالحكم بن المظفر:

- ديوان شعر اسمه نهج الوضاعة

٧- ابن البذوخ:

- شرح كتاب الفصول لأبقراط، أرجوزة
- شرح كتاب تقدمه المعرفة لأبقراط، أرجوزة
- كتاب ذخيرة الألباء
- المفرد في التأليف عن الأشباه
- حواشي على كتاب القانون لابن سينا

٨- حليم الزمان الحلياني:

- مقاله من منظوم الكلام ومطلقه عشرة دواوين:

- (١) ديوان الحكم وميدان الكلم
- (٢) ديوان المشوقات الى الملا الاعلى
- (٣) ديوان أدب السلوك
- (٤) كتاب نواذر الوحي
- (٥) كتاب تحرير النظر
- (٦) كتاب سر البلاغة وضائع البديع في فصل الخطاب
- (٧) ديوان المشرات والقدسيات
- (٩) ديوان تشبيهات وألغاز ورموز وأحاجي وأوصاف وزجريات وأغراض شتى منظوماً
- (١٠) ديوان ترسل ومخاطبات في معان كثيرة وأصناف من الخطب والصدور والأدعية

- كتاب منادح الممادح وروضة المآثر والمفاخر
- تعاليق في وصف أدوية مركبة

٩- عفيف بن سكرة:

- مقالة في القولنج

١٠- ابن الصلاح:

- مقالة في الشكل الرابع من أشكال القياس الحملي

- كتاب في الفوز الأصغر في الحكمة

١١- شهاب الدين السهروردي:

- كتاب التلويحات اللوحية والعرشية
- كتاب الألواح العمادية
- كتاب اللحمية
- كتاب المقاومات وهو لواحق على كتاب التلويحات
- كتاب هياكل النور
- كتاب المعارج
- كتاب المطارحات
- كتاب حكمة الأشواق

١٢- شمس الدين الخوي:

- تتمة تفسير القرآن لابن خطيب الري
- كتاب في النحو
- كتاب في علم الأصول
- كتاب يشتمل على رموز حكمية على ألقاب السلطان الملك المعظم

١٣- رفيع الدين الجيلي:

- شرح الإشارات والتنبيهات
- اختصار الكليات من كتاب القانون لابن سينا
- كتاب جمع مافي الأسانيد من حديث النبي صلى الله عليه وسلم

١٤- شمس الدين الخسروشاهي:

- مختصر كتاب المذهب في الفقه على مذهب الشافعي ابن اسحق الشيرازي
- مختصر كتاب الآيات البينات لابن خطيب الري

١٥- سيف الدين الأمدى:

- كتاب دقائق الحقائق
- كتاب رموز الكنوز
- كتاب لباب الألباب
- كتاب أبكار الأفكار في الأصول
- كتاب غاية المرام في علم الكلام
- كتاب كشف التموهيات في شرح التنبيهات
- كتاب غاية الأمل في علم الجدل
- شرح كتاب شهاب الدين المعروف بالشريف المراغي في الجدل
- كتاب منتهى السالك في رتب المسالك
- كتاب المبين في معاني الفاظ الحكماء والمتكلمين
- دليل متحد الإئتلاف وجاد في جميع مسائل الخلاف
- كتاب الترجيحات في الخلاف
- كتاب المؤخذات في الخلاف
- كتاب التعليقة الصغيرة
- كتاب التعليقة الكبيرة
- عقيدة تسمى خلاصة الأبريز
- تذكرة الملك العزيز بن صلاح الدين كتاب منتهى السؤل في علم الأصول
- كتاب منائح القرائح

١٦- موفق الدين بن المطران:

- كتاب بستان الأطباء وروضة الألباء
- المقالة الناصرية في حفظ الأمور الصحية قصد فيها الإيجاز والبلاغ
- اختصار كتاب الأنوار للكسدانيين
- لغز في الحكمة
- كتاب على مذهب دعوة الأطباء
- كتاب في الأدوية المفردة، لم يتم
- كتاب آداب طب الملوك

١٧- مهذب الدين أحمد بن الحاجب:

- الزيج المشهور
- المنبر في الفرائض
- كتاب غريب الحديث
- كتاب في الخلاف مجدول على وضع تقويم الصحة

١٨- أبو النجم النصراني:

- كتاب موجز في الطب

١٩- فخر الدين الساعاتي:

- تكميل كتاب القولنج للرئيس ابن سينا
- الحواشي على كتاب القانون لابن سينا
- كتاب المختارات في الأشعار وغيرها

١٠- شمس الدين اللبودي:

- كتاب الرأي المعتبر في القضاء والقدر
- شرح كتاب الملخص لابن الخطيب
- رسالة في جمع المفاصل
- شرح كتاب المسائل لحنين بن إسحق

٢١- صاحب نجم الدين اللبودي:

- مختصر الكليات من كتاب القانون لابن سينا
- مختصر كتاب الإشارات والتنبيهات لابن سينا
- مختصر كتاب عيون الحكمة لابن سينا
- مختصر كتاب الملخص لابن خطيب الري
- مختصر كتاب المعاملين في الأصوليين
- مختصر كتاب أوقليدس
- مختصر مصادرات أوقليدس
- كتاب اللمعات في الحكمة
- كتاب آفاق الإشراق في الحكمة
- كتاب المناهج القدسية في العلوم الحكمية
- كافية الحساب في علم الحساب
- غاية الغايات في المحتاج إليه أوقليدس والمتوسطات
- تدقيق المباحث الطبية في تحقيق المسائل الخلافية على طريق مسائل خلاف الفقهاء
- مقالة في البشغثا
- كتاب إيضاح الرأي السخيف من كلام الموفق عبداللطيف
- غاية الأحكام في صناعة الأحكام
- الرسالة السنية في شرح المقدمة الطرزية
- الأنوار الساطعات في شرح الآيات البيّنات
- كتاب نزهة الناظر في المثل السائر

- الرسالة الكاملة في علم الجبر والمقابلة
- الرسالة المنصورية في الأعداد الوفقية
- الزاهي في اختصار الزيج المقرب المبني على الوصد
المجرب

٢٢- أبو الفضل عبد الكريم المهندس:

- رسالة في معرفة رمز التقويم
- مقالة في رؤية الهلال
- اختصار كتاب الأغاني الكبير لأبي الفرج الأصبهاني
- كتاب في الحرب والسياسة
- كتاب في الأدوية المفردة على ترتيب حروف أبجد

٢٣- رضي الدين الرحبي:

- شرح ابن الطبيب لكتاب الفصول لأبقراط
- اختصار كتاب المسائل لحنين

٢٤- شرف الدين الرحبي:

- كتاب في خلق الإنسان وهيئة أعضائه ومنفعتهم
- حواشي على كتاب القانون لابن سينا
- حواشي على شرح ابن أبي صادق لمسائل حنين

٢٥- كمال الدين الحمصي:

- مقالة في الباء
- شرح بعض كتاب العلل والأعراض لمجالينوس
- الرسالة الكاملة في الأدوية المسهلة

- اختصار كتاب الحاوي للرازي لم يتم
- مقالة في الاستسقاء
- تعاليق على الكليات من كتاب القانون
- تعاليق في الطب
- تعاليق في البول
- اختصار كتاب المسائل لحنين بن اسحق

٢٦- موفق الدين عبد اللطيف البغدادي:

- كتاب غريب الحديث
- كتاب المجرد من غريب الحديث
- كتاب الواضحة في اعراب الفاتحة
- كتاب الالف واللام
- مسألة في قوله تعالى "إذا أخرج يده لم يكد يراها"
- مسألة نحوية
- مجموع مسائل نحوية وتعاليق
- كتاب رب
- شرح بانة سعاد
- كتاب ذيل الفصيح
- الكلام في الذات والصفات الذاتية المجادية على السنة المتكلمين
- شرح أوائل المفصل
- خمس مسائل نحوية
- شرح مقدمة ابن بابشاذ وسماء باللمع الكاملة
- شرح الخطب البناتية
- شرح الحديث المتسلسل
- شرح سبعين حديثاً، شرح أربعين حديثاً طبياً
- كتاب الرد على ابن خطيب الري في تفسير صورة الإخلاص

- كتاب كشف الظلامه عن قدامة، شرح نقد الشعر لقدامة
- أحاديث مخرجة من الجمع بين الصحيحين
- كتاب اللواء العزيز، باسم الملك العزيز في الحديث
- كتاب قوانين البلاغة
- حواشي على كتاب الخصائص لابن جني
- كتاب الإنصاف بين ابن بدي وابن الخشاب على المقامات
للحريري،
- وانتصار ابن بري للحريري
- مسألة في قولهم "أنت طالق" في شهر قبل مابعد قليله
في رمضان
- تفسير قوله عليه السلام "الراحمون يرحمهم الرحمن"
- كتاب قبة العجلان في النحو
- اختصار كتاب الصناعتين للعسكري
- اختصار كتاب العمدة لابن رشيق
- مقالة في الوفق
- كتاب الجلي في الحساب الهندي
- اختصار كتاب النبات لأبي حنيفة الدينوري وك آخر في
فئة مثله
- اختصار مادة البقاء للتميمي
- كتاب الفصول وهو بلغة الحكيم
- شرح كتاب الفصول لأبقراط
- شرح كتاب مقدمة المعرفة لأبقراط
- اختصار وشرح جالينوس لكتب الأمراض الحادة لأبقراط
- اختصار كتاب الحيوان لأرسطوطاليس
- تهذيب مسائل مابال لأرسطوطاليس
- كتاب آخر في فنه مثله
- اختصار كتاب منافع الأعضاء لجالينوس
- اختصار آراء أبقراط وأفلاطن، اختصار كتاب الجنسين
- اختصار كتاب الصوت

- اختصار كتاب المنى
- اختصار كتاب آلات التنفس
- اختصار كتاب العضل
- اختصار كتاب الحيوان للجاحظ
- كتاب آلات التنفس وأفعالها
- كتاب النخبة وهو خلاصة الأمراض الحادة
- اختصار كتاب البول للإسرايلى
- اختصار كتاب النبض للإسرايلى
- كتاب أخبار مصر الكبير
- كتاب أخبار مصر الصغير
- كتاب تاريخ، وهو يتضمن سيرته الفه لولده شرف الدين يوسف
- مقالة في العطش
- مقالة في الماء
- مقالة في إحصاء مقاصد واضعي الكتب من كتبهم ومايتبع ذلك من المنافع والمضار
- مقالة في معنى الجوهر والعرض
- مقالة موجزة في النفس
- مقالة في الحركات المعتاضة
- مقالة في العادات
- الكلمة في الربوبية
- مقالة في حقيقة الدواء والغذاء ومعرفة طبقاتها وكيفية تركيبها
- مقالة في البادئ بصناعة الطب
- مقالة في شفاء الضد بال ضد
- مقالة في ديابيبس والأدوية النافعة منه
- مقالة في الراوند
- مقالة في السقنقور
- مقالة في الحنطة

- مقالة في الشراب والكرم
- مقالة في البحرات، صغيرة
- رسالة الى مهندس فاضل محلي
- اختصار كتاب الادوية المفردة لابن وافد
- اختصار كتاب الادوية المفردة لابن سمحون
- كتاب كبير في الادوية المفردة
- مختصر في الحميات
- مقالة في المزاج
- كتاب الكفاية في التشريح
- كتاب الرد على ابن الخطيب في شرحه بعض كليات القانون
- كتاب تعقيب حواشي ابن جميع على القانون
- مقالة يرد فيها على كتاب ابن رضوان المصري في اختلاف جالينوس وأرسطوطاليس
- مقالة في الحواس
- مقالة في الكلمة والكلام
- كتاب السبعة
- كتاب تحقيق الامل
- كتاب في الرد على اليهود والنصارى
- مقالة في ترتيب المصنفين
- كتاب الحكمة العلائية ذكر فيه أشياء حسنة في العلم الإلهي
- مقالة على جهة التوطئة في المنطق
- حواشي على كتاب البرهان للفارابي
- كتاب الترياق فصول منتزعة من كلام الحكماء وحل شئ من شكوك الرازي على كتاب جالينوس
- كتاب المراقى الى الغاية الإنسانية ثمان مقالات
- مقالة في ميزان الادوية المركبة من جهة الكميات
- مقالة في موازنة الادوية والادواء من جهة الكيفيات
- مقالة في تعقيب أوزان الادوية

- مقالة أخرى في المعنى وكشف شبهة وقعت لبعض العلماء
- مقالة في المعنى في جواب ثلاث مسائل
- مقالة سادسة مختصرة
- مقالة تتعلق بموازين الأدوية الطبية في المركبات
- انتزاعات من كتاب ديسقوريدس في صفات الحشائش
- انتزاعات أخرى في منافعها
- مقالة في تدبير الحرب كتبها لبعض ملوك زمانه
- مقالة في السياسة العملية
- كتاب العمدة في أصول السياسة
- مقالتان في المدينة الفاضلة
- مقالة في العلوم الضارة
- رسالة في الممكن
- مقالة في الجنس والنوع أجاب بها في دمشق سؤال سائل في سنة أربعة وستمئة
- الفصول الأربعة المنطقية
- تهذيب كلام أفلاطن
- حكم منشورة إيساغوجي مبسوط الوقعات
- مقالة في النهاية واللانهاية
- كتاب تأريث الفطن في المنطق والطبيعي والإلهي
- مقالة في كيفية استعمال المنطق
- مقالة في حد الطب
- مقالة في البادئ بصناعة الطب
- مقالة في أجزاء المنطق التسعة، مجلد كبير
- مقالة في القياس
- كتاب في القياس
- كتاب السماع الطبيعي
- كتاب العجيب
- حواشي على كتاب الثمانية المنطقية للفارابي

- شرح الاشكال البرهانية من ثمانية أبي النصر
- مقالة في تزييف الشكل الرابع
- مقالة في القياسات المختلطات والعرق
- مقالة في تزييف المقاييس الشرطية التي يظنها ابن سينا
- مقالة أخرى في المعنى أيضا
- كتاب المحاكمة بين الحكيم والكيميائي
- مقالة في الحواس
- عهد الى الحكماء
- اختصار كتاب الحيوان لابن أبي الأشعث
- اختصار القولنج لابن أبي الأشعث

٢٧- أبوالحجاج يوسف الإسرائيلي:

- رسالة في ترتيب الاغذية اللطيفة والكثيفة في تناولها
- شرح الفصول لأبقراط

٢٨- رشيد الدين ابن الصوري:

- كتاب الادوية المفردة
- الرد على كتاب التاج للغاوي في الادوية المفردة
- تعاليق له وفوائد ووصايا طبية

٢٩- سديد الدين بن رقيقة:

- كتاب لطف السائل وتخف المسائل
- كليات القانون لابن سينا
- كتاب موضحة الاشتباه في أدوية الباه
- كتاب الفريدة الشاهية والقصيدة الباهية
- كتاب قانون الحكماء وفردوس الندماء

- كتاب الغرض المطلوب في تدبير المأكول والمشروب
- مقالة مسائل وأجوبتها في الحميات
- أرجوزة في الفصد

٣٠- صدقة السامري:

- شرح التوراة
- كتاب النفس
- تعاليق في الطب ذكر فيها الأمراض وعلامتها
- شرح كتاب الفصول لأبقراط، لم يتم
- مقالة في أسامي الأدوية المفردة
- مقالة أجاب فيها عن مسائل طبية سألها عنها الأسعد المحلي اليهودي
- مقالة في التوحيد وسمها كتاب الكنز في الفوز
- كتاب الاعتقاد

٣١- مهذب الدين يوسف بن أبي سعيد:

- شرح التوراة

٣٢- صاحب أمين الدولة:

- كتاب نهج الواضح في الطب

٣٣- مهذب الدين عبد الرحيم بن علي:

- اختصار كتاب الحاوي في الطب للرازي
- اختصار كتاب الأغاني الكبير لأبي الفرج الأصفهاني

- مقالة في الاستفراغ
- تعاليق ومسائل في الطب وشكوك طبية
- كتاب الرد على شرح ابن صديق لمسائل حنين
- مقالة يرد فيها على رسالة أبي الحجاج يوسف الإسرائيلي في ترتيب
- الأجفة اللطيفة والكثيفة في تناولها

٣٤- رشيد الدين علي بن خليفة:

- كتاب الموجز المفيد في علم الحساب
- كتاب في الطب
- كتاب طب السوق
- مقالة في السبب الذي خلقت له الجبال
- كتاب الاستقسط
- تعاليق ومجربات في الطب

٣٥- بدر الدين بن قاضي بعلبك:

- مقالة في فراج الرقة
- كتاب فوج النفس
- كتاب الملح في الطعام

٣٦- نجم الدين بن المنفاخ:

- كتاب التدقيق في الجمع والتفريق
- كتاب هتك الاستار في تمويه الدخوار تعاليق ما حصل له من التجارب وغيرها
- شرح أحاديث نبوية تتعلق بالطب
- كتاب المدخل إلى الطب

- كتاب العلل والأعراض
- كتاب الإشارات المرشدة في الأدوية المفردة

٣٧- عز الدين السويدي:

- كتاب الباهر في الجواهر
- كتاب التذكرة العادية والذخيرة الكافية في الطب

٣٨- عماد الدين الدينسري:

- المقالة المرشدة في درج الأدوية المفردة
- كتاب نظم الترياق الفاروق
- كتاب المشروديطوس
- كتاب في تقدمه المعرفة لأبقراط
- أرجوزة
- كتاب ديوان شعر

٣٩- موفق الدين يعقوب السامري:

- شرح الكليات من كتاب القانون لابن سينا
- حل شكوك نجم الدين بن المنفخ
- كتاب المدخل الى علم المنطق والطبيعي والإلهي

٤٠- أبو الفرج بن القف:

- كتاب الشافي في الطب
- شرح الكليات من كتاب القانون لابن سينا
- شرح الفصول كتابين
- مقالة في حفظ الصحة

- كتاب العمدة في صناعة الجراح
- كتاب جامع الغرض
- حواشي على ثالث القانون
- شرح الإشارات لم يتم
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