

**THE REALITY OF APPLYING AND USING E-HEALTH IN PRIVATE HOSPITALS IN THE REPUBLIC OF  
YEMEN**

**(ADEN SPECIALIZED MEDICAL COMPLEX AND HOSPITAL AS A MODEL)**

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**Abstract**

The purpose of the study is to know the extent of use and application of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in Aden Specialized Medical Hospital in the Republic of Yemen.

The aim of the study is to know the reality of the application of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in Aden Specialized Medical Hospital and the extent of the hospital administration's contribution to encouraging the use of electronic health in the hospital. In the Republic of Yemen, the respondents (the study sample) were all employees, doctors, specialists, and consultants in the hospital. The questionnaire tool was used to collect data from the target sample, the questionnaire was designed based on the theoretical literature of the study, while the second part of the questionnaire consists of (28) axes and paragraphs. The five-point Likert scale was used to answer the question of the statement (strongly agree, agree, neutral, disagree, and strongly disagree). The researcher used statistical treatment tools, including the statistical package for the Statistical Analysis Program (SPSS), the ratios, averages, and standard deviations of the answer. On the study questions, the descriptive and analytical method was used in this study and the hypotheses were tested and came

up with a group a bunch of results and including the study proved through analysis that Aden Specialized Hospital does not have electronic health because of this.

The study proved that Aden Specialized Hospital does not have electronic health because it does not apply and does not use the electronic medical record, and it does not apply or use electronic medical information nor is it available in electronic medicine, and the study proved that the administration of Aden Specialist Hospital does not contribute or encourage the application and use of electronic health in the hospital Among the recommendations, the study recommended that the hospital should provide electronic health, which is the electronic medical record, electronic medical information and electronic medicine.

**Keywords:** Electronic health, electronic medical record, electronic medical information, electronic medicine, Aden Specialized Hospital, doctors and employees, the Republic of Yemen.

### **Introduction:**

Developing countries face difficulties in improving their health care system in order to access it To the remote and rural parts of the nations. Healthcare system and e-health is one of the major issues in developing countries and thus information technology is getting more and more important with time. Health is one of the most important and valuable things in a person's life. Every nation is aware of its public health. Millions of people die every year due to basic health and a lack of health care. All major public health threats face a shortage of health professionals.

Insufficient health education, lack of access to accuracy and health awareness is an important contributing factor, in addition to the lack of electronic health in some countries of the world, including third world countries.

In addition to the motives of health and economic factors, but due to the lack of government initiatives, political issues and war that exist in the Republic of Yemen nowadays, health awareness is not only a growing trend among countries but also between countries and individuals, the application of e-health systems (e-health), especially in developing countries. It is now a common challenge among United Nations agencies and health authorities (NGOs) at the international, national and local levels over the past few years, the health sector in developing countries has increased broad development using information and communication technology (ICT) tools on an

approach and methodology that holds most promises of success. The Republic of Yemen is a developing country in Southwest Asia, a densely populated country with a densely populated area. The population of the Republic of Yemen is more than 30 million, and 70% of them live in rural areas. According to the United Nations Population Fund (UNFPA), the health system in the Republic of Yemen is living in its worst conditions due to the war. Seven years ago, the state's infrastructure was destroyed, including the health sector, health centers and hospitals, and according to the reports of the Yemeni Ministry of Health, more than 70% of the health sector in the country has been destroyed.

### **Previous studies:**

(Alvarez, 2014) The study aimed to identify the extent of the impact of international e-health on the national health systems by looking at the different uses of e-health. It also analyzes and diagnoses the various health systems in all countries that provide e-health and those people who are affected by it. The study provided a description of this trade and its various and multiple mediums and how it affects the national health systems. This study concludes by highlighting the need to consider all forms of trade when discussing international e-health services.

A study (Rubrichi et al, 2014), which studied the e-health system in health organizations. The study aimed to identify users' perceptions of the messaging system (SMS), the patient reminder system for diagnosis and review, the response system for conducting tests and laboratory analyzes, in addition to patients' complaints, comments and reactions. Where the results of the study showed that this system helps to develop the performance of health centers workers and improve the quality of health services provided to patients in addition to benefiting from the feedback from patients that can be used to obtain better results in the implementation of the service itself. The results also showed that these systems have a positive and significant effect on commitment to deadlines, accuracy in results, and transparency in the exchange and transfer of information.

A study (Aahtiyar& Caglayan, 2014) The study provided a proposed model for evaluating the confidence of electronic health services provided by health entities to individuals, which have spread widely as a result of the widespread development of information and communication technology. This model contains comprehensive evidence that applies to different types of health

entities and a set of measures to assess confidence in electronic health services and security systems. The results of the study showed that the proposed and presented model provides the best results according to confidence from trust models based on e-health systems. Moreover, health entities are also able to assess confidence in the provision of electronic health services and provide the various security needs of e-health systems.

A study (Ghazvini & Shukur , 2013) The study analyzed the discovery of contemporary practices in enhancing the privacy and confidentiality of patient records, identifying the important aspects and components of the e-health policy, as well as discussing the information security policy (GLOCAL) system and the effectiveness of this obligation in e-health policy-making. The study concluded that there is a necessary and important policy for implementing electronic health systems, such as financial, monetary, and administrative and security policies. And that the (GLOCAL) system is considered an effective approach in the security and exchange of information and resources across health information networks, and that this system is effective in making strategic policies for e-health systems.

A study (Moghaddasi, et. 2012) The study aimed to shed light on the recent interest in recent years towards the development of information and communication technology in the provision of health care known as e-health. The focus of the study was to review the factors that affect the development of e-health projects. This study also showed the state of e-health in various developed and developing countries on the basis of List of reports, documents and documents on this concept. A review of these documents revealed that the state of e-health in various countries depends on three main factors: information and communication technology, economic capacity, and the level of health status.

A study (MedCom, 2006) The aim of the study is the wide spread of the health network as we noticed through the study that the idea has already been realized by the system, contacting the Prescription Data Server of the Danish Medicines Agency which maintains a list of patient records about prescribed medicines for each person from both hospitals and general practitioners. The most important system we found that Information flow between several actors in the system, especially in nine areas of e-health.

A study (EHealth Era, 2007) The Swedish electronic health system is used in governmental and private hospitals of the country. It encourages the application of health. The electronic health system aims to facilitate patient service and guide them as quickly as possible.

A study (EHealth Europe, 2009).Austria has developed its own health care system and electronic health system with the aim of supporting health information technology since 2005, especially doctors in the sector are doing their work within the national electronic communication network, the electronic health card project is a long-term goal, which is a decentralized implementation and the electronic health records system in this scenario, the patient's data will remain In hospitals, however, the patient's electronic card serves as administrative patient identification tools to verify accuracy through the central social security database. Both Austrian State Hospital and physicians will have access to it to review the patient's history.

A study (UNESCAP, 2010).India is a massively populated country in Asia and the central government does not have a citizen health insurance policy but every state government has a primary responsibility and providing public health care. Information and communication technology in India is currently self-sufficient in achieving its goals hardware, software, communication and services needs and thus e-health makes potential a bridge Between this gap for integration into existing healthcare delivery systems both public and the private sector are actively working to develop the e-health sector in India.

A study (Dr. Muga R., Dr. Kizito B, Mr. Mbaya et al., 2011).The main objective is to establish a health system in Canada that generates and uses health information in the formulation of various policies, management planning, budgeting, implementation, monitoring and evaluation of services by establishing health care and e-health and using electronic health records. It appears to be necessary for the health care sector in the country to develop the existing health care policy. On information and communication technologies that address major technical challenges and opportunities.

A study (Steve, Joseph, Fhimss et al. 2007 & Leonidas, Panagiotis and Barry, 2004).The aim of the study is to know the role of the government health care system to initiate better planning, implementation, control and maintenance of electronic health records in the database. The study found that the standards and interoperability of all countries suffer from the same issues due to lack of infrastructure and healthcare standards in common barriers of communication between

systems. “France, Sweden, Australia, Canada, the United Kingdom and the Netherlands are trying to standardize electronic health records within their countries”.

A study (Janice, RN, and Deborah, 2006) The aim of the study is to know the role of the electronic medical record (EHR) in improving patient safety through the use of paperless materials, health records.

A study (Moscow, 2008) the aim of the study is to describe the current healthcare system and the use of information technology and digital medicine in e-health in urban areas of Bangladesh. The first information and communication technology policy was formulated in Bangladesh in 2002 and adopted by the government in 2009. The vision was to define and fundamentally develop health care to ensure the quality of health care for all citizens in Bangladesh. The study concluded that the government of Bangladesh contributes, develops and uses information technology and digital medicine in health. Urban electronics.

### **The study Problem:**

This study deals with knowing the extent of application and use of electronic health in private hospitals in the Republic of Yemen by referring to the Aden Specialized Medical Complex and Hospital. Application and use of e-health in Aden Specialized Medical Complex in the Republic of Yemen, hence the importance of this study by addressing the problems of the study, which are represented in the following:

**The first main question:** The first: What is the extent of application and use of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in private hospitals in the Republic of Yemen with reference to Aden Specialized Medical Complex and Hospital?

### **Sub-inquiries:**

To what extent is the application and use of the electronic medical record in private hospitals in the Republic of Yemen with reference to Aden Specialized Medical Complex and Hospital?

To what extent is the application and use of electronic medical information in private hospitals in the Republic of Yemen with reference to Aden Specialized Medical Complex and Hospital?

To what extent is the application and use of digital medicine (electronic medicine) in private hospitals in the Republic of Yemen with reference to Aden Specialized Medical Complex and Hospital?

**The second main question:** What is the contribution of the Aden Specialized Medical Hospital administration in encouraging the use of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in the complex?

**The third main question:** What is the positive effect of using electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) of the Aden Specialized Medical Complex?

### **Study hypotheses:**

The research starts from a set of hypotheses, namely

**The first main hypothesis:** E-health (electronic medical record, electronic medical information and digital medicine (electronic medicine) is applied and used in Aden Specialized Medical Hospital.

The first main hypothesis is divided into the following sub-hypotheses:

**The first sub-hypothesis:** the electronic medical record is applied and used in Aden Specialized Medical Hospital.

**The second sub-hypothesis:** the electronic medical information is applied and used in Aden Specialized Medical Hospital.

**The third sub-hypothesis:** digital medicine (electronic medicine) is applied and used in Aden Specialized Medical Hospital.

**The second main hypothesis:** The administration of Aden Specialized Medical Hospital contributes to encouraging the use of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in the hospital.

**The third main hypothesis:** E-health (electronic medical record, electronic medical information and digital medicine (electronic medicine) affect the performance and reputation of Aden Specialized Medical Hospital.

**Objectives of the study:**

The research starts from a set of goals, namely

**The first main objective:** To know the extent of application and use of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in Aden Specialized Medical Hospital.

**The first main goal is divided into the following sub-goals:**

**First sub-goal:** To know the extent of application and use of the electronic medical record in Aden Specialized Medical Hospital.

The second sub-objective: To know the extent of application and use of electronic medical information in Aden Specialized Medical Hospital.

**The third sub-goal:** To know the extent of application and use of digital medicine (electronic medicine) in Aden Specialized Medical Hospital.

**The second main objective:** To know the extent of the contribution of the Aden Specialized Medical Hospital administration in encouraging the use of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in the hospital.

**The third main objective:** To know the impact of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) on the performance and reputation of Aden Specialized Medical Hospital.

**Methodology:**

The importance of the study lies in the fact that it examines the reality of the use and application of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in Aden Specialized Medical Hospital in the Republic of Yemen, and the extent of the hospital administration's contribution to encouraging the use of electronic health (electronic medical record, electronic medical information and medicine) Digital (electronic medicine) in the hospital This study seeks to identify the use and application of electronic health The researcher researches this paper The analytical method was used in this study, and the comparison was used in this study The questionnaire tool was used to collect data from the target



sample, and it was designed The questionnaire is based on the theoretical literature of the study, while the second part of the questionnaire consists of the axes and paragraphs of (28) questions. Likert scale of five points was used to answer the question of the statement (strongly agree, agree, neutral, disagree, and strongly disagree). Statistical processing tools, the Statistical Package for the Social Sciences Program includes Statistical Analytics (SPSS), ratios, and Averages and standard deviations to answer study questions.

The descriptive and analytical approach was used in this study, testing hypotheses and arriving at a set of results and recommendations, the population, sample of the study, the study population is Aden Medical Specialist Hospital in the Republic of Yemen, and the respondents (study sample) were all employees, doctors, specialists and consultants in the hospital.

**Table (1): the electronic medical record is applied and used in Aden Specialized Medical Hospital.**

Axis Question	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Mean	Standard Division	Arrange	Trend
	F	%	F	%	F	%	F	%	F	%				
Q1	9	10	12	14	13	15	34	38	20	23	2.50	1.16	2	Disagree
Q2	7	8	14	16	19	21	38	43	10	12	2.75	1.22	1	Disagree
Q3	5	6	10	12	13	15	41	46	19	21	2.32	1.09	5	Disagree
Q4	3	4	7	8	11	13	53	60	14	15	2.22	1.02	7	Disagree
Q5	6	7	6	7	14	16	61	69	1	1	2.48	1.15	3	Disagree
Q6	4	4	7	8	12	14	58	66	7	8	2.35	1.13	4	Disagree
Q7	3	3	6	7	15	17	51	58	13	15	2.26	1.04	6	Disagree
Weighted Average											2.41			Disagree

#### **Analysis of the paragraphs of the first sub-hypothesis:**

The first paragraph: The study proved through analysis that Aden Specialist Hospital does not apply and does not use the electronic medical record, and the hospital still uses the traditional system to save data and information on patients, as the answers of the study sample were for the first paragraph of the first sub-hypothesis, which states that (medical records are available The

hospital does not provide electronic medical records to provide all the patient's medical information in an integrated and coordinated form. The second paragraph shows through the answers that the hospital does not use electronic records to help the doctor distinguish signs of danger and warn the patient in his early beginnings and before he reaches a stage that is difficult to treat. It is clear that most of the answers tend to disagree with an average (2.75), with regard to the third paragraph Which states that (electronic medical records are used to help the doctor make the correct and appropriate decision in prescribing the appropriate treatment, examination, or surgery), it is clear that most of the answers are directed towards disagreement with an average of (2.32), meaning that the hospital does not use electronic medical records to help the doctor take The decision, as for the responses of the respondents in the fourth paragraph, which states that (modern information systems provide electronic medical records with special capabilities to process and analyze data), most answers tend to disagree with an average of (2.22), meaning that the hospital does not provide modern information systems. Electronic medical records with special capabilities to process and analyze data, and with regard to the respondents' answers to the fifth paragraph, which states that (Electronic medical records are used in Creating and linking the doctor's multiple instructions from the analyzes he requests to the patient or the medications he prescribes for him or different procedures that he specifies) it is clear that most of the answers are directed towards disagreement with an average of (2.48) that is, the hospital does not use electronic medical records to create and link the doctor's instructions, and with regard to the paragraph The sixth confirms that the respondents' responses to this paragraph, which states (the sample analysis is used and its results are recorded in the patient's electronic medical record automatically). It is noticed through the responses of the respondents Chiral that there is a lack of consent with an average of (2.35), meaning that the hospital does not use sample analysis and record its results. In the electronic medical record, while the seventh paragraph states (The results reach the patient's electronic medical record at the appropriate time), it is clear that most of the answers tend to disagree with an average of (2.26), meaning that the results do not reach the patient's electronic medical record in time. the appropriate.

**Through the analysis of the paragraphs of the first main hypothesis, the following became clear**

We note from the above table that the weighted average of all the paragraphs that represent the first sub-hypothesis was (2.41). This indicates that the respondents' answers indicate that all the paragraphs of the first sub-hypothesis are not approved, and they indicate the disagreement, meaning that they do not agree with the answers of the first hypothesis paragraphs, which states (apply and use the electronic medical record in Aden Specialized Medical Hospital) while the standard deviation ranged from these The paragraphs between (1.02-1.22), which indicates the homogeneity of the respondents' responses to this hypothesis, which indicates their disagreement with the answers of the paragraphs of the first sub-hypothesis.

Through the previous results, we confirm that the respondents do not agree with these paragraphs of the first sub-hypothesis, which states that the electronic medical record is applied and used in Aden Specialized Medical Hospital in the Republic of Yemen.

Through the foregoing, the first sub-hypothesis (H1) has been denied, which states (the electronic medical record is applied and used in Aden Specialized Medical Hospital in the Republic of Yemen) and the alternative hypothesis (H0) is accepted, which states that (there is no application or use of the electronic medical record in a hospital Aden Medical Specialist in the Republic of Yemen)

**Table (2): the electronic medical information is applied and used in Aden Specialized Medical Hospital**

Axis Question	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Mean	Standard Division	Arrange	Trend
	F	%	F	%	F	%	F	%	F	%				
Q1	4	5	9	10	19	22	47	53	9	10	2.45	1.09	3	Disagree
Q2	3	3	8	10	12	14	50	56	15	17	2.25	0.99	6	Disagree
Q3	2	2	6	7	10	11	56	64	14	16	2.15	0.89	7	Disagree
Q4	5	6	11	13	17	19	53	60	2	2	2.59	1.13	2	Disagree
Q5	4	5	8	9	12	13	59	67	5	6	2.39	1.05	5	Disagree
Q6	3	3	9	11	13	15	60	68	3	3	2.42	1.08	4	Disagree
Q7	9	10	11	12	12	14	51	58	5	6	2.63	1.16	1	Disagree
Weighted Average											2.40			Disagree

**Analysis of the second sub-hypothesis paragraphs**

The first paragraph: The study proved through analysis that Aden Specialist Hospital does not apply and does not use electronic medical information, and the hospital still uses the traditional system to save data and information on patients. Preserving and protecting medical information electronically) the answers were directed towards non-approval, with an average of (2.45), meaning that the hospital does not use or store medical information electronically. The second paragraph shows through the answers that the hospital does not use electronic medical information in making appropriate medical decisions. It is clear that most of the answers tend to disagree with an average of (2.25), with regard to the third paragraph which states that (the patient's electronic medical information is updated in a regular way). Continuous) It is clear that most of the answers are directed towards disagreement with an average of (2.15), meaning that the hospital does not update the patient's electronic medical information continuously, as for the responses of the respondents in the fourth paragraph which states that (the patient's electronic medical information is kept completely confidential), most The answers to the disapproval average (2.59), meaning that the hospital does not keep electronic medical information for the patient and is completely confidential, and with regard to the respondents' answers to the fifth paragraph, which states that (there is a system that controls how, when, and the nature of the patient's electronic medical information is used), it is clear Most of the answers are directed towards disapproval, with an average of (2.39), meaning that the hospital does not do so, and with regard to the sixth paragraph, it confirms that the responses of the respondents to this paragraph, which states (test The electronic medical information served in facilitating the communication and integration of information between the various medical departments and specialties) It is noticed through the responses of the respondents Chiral that there is an average disagreement of (2.42) that is, the hospital does not use electronic medical information in facilitating the communication and integration of information between the various medical departments and specialties, while it states The seventh paragraph (electronic medical information systems contribute to improving the quality of medical services and health care), and it is clear that most of the answers tend to disagree with an average of (2.63), meaning that no hospital does not care about that.

**Through the analysis of the paragraphs of the first main hypothesis, the following became clear:**

We note from the above table that the weighted average of all the paragraphs that represent the second sub-hypothesis was (2.40). This indicates that the respondents' answers indicate that all paragraphs of the second sub-hypothesis are not approved, and they indicate the disagreement, meaning that they do not agree with the answers of the second hypothesis paragraphs, which states (apply and use electronic medical information in Aden Specialized Medical Hospital) while the standard deviation of these ranges. The paragraphs between (0.89 -1.16), which indicates the homogeneity of the respondents' responses to this hypothesis, which indicates their disagreement with the answers of the second sub-hypothesis paragraphs.

Through the previous results, we confirm that the respondents do not agree with these paragraphs of the second sub-hypothesis, which stipulates the application and use of electronic medical information in Aden Specialized Medical Hospital in the Republic of Yemen.

Through the foregoing, the first sub-hypothesis (H2) has been denied, which states (applies and uses electronic medical information in Aden Specialized Medical Hospital in the Republic of Yemen) and accepts the alternative hypothesis (H0), which states that (It does not apply and does not use electronic medical information in Aden Hospital. Medical Specialist in the Republic of Yemen).

**Table (3) : digital medicine (electronic medicine) is applied and used in Aden Specialized Medical Hospital.**

Axis Question	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Mean	Standard Division	Arrange	Trend
	F	%	F	%	F	%	F	%	F	%				
Q1	2	2	7	8	21	24	43	49	15	17	2.29	0.87	7	Disagree
Q2	6	7	6	7	9	10	54	61	13	15	2.29	0.87	6	Disagree
Q3	4	5	3	3	17	19	55	63	9	10	2.30	1.28	5	Disagree
Q4	9	10	8	9	18	20	48	55	5	6	2.63	1.11	2	Disagree
Q5	4	5	6	7	14	16	57	64	7	8	2.64	1.12	1	Disagree
Q6	3	3	9	10	20	23	49	56	7	8	2.45	1.03	4	Disagree
Q7	8	9	7	8	14	16	56	64	3	3	2.55	1.09	3	Disagree
Weighted Average											2.45			Disagree

### **Analysis of the second sub-hypothesis paragraphs**

The first paragraph: The study proved through analysis that Aden Specialized Hospital does not apply and does not use electronic medicine, and the hospital still uses direct medicine, as the answers of the study sample were for the first paragraph of the third sub-hypothesis, which states that (the hospital uses modern information technology and the electronic portal to practice electronic medicine) The answers were directed towards disagreement with an average of (2.29), meaning that the hospital does not use modern information technology and the electronic portal to practice electronic medicine. The second paragraph shows through the answers that the hospital does not use electronic files remotely in electronic medicine. It is clear that most of the answers tend to disagree with an average of (2.29), with regard to the third paragraph which states that (the use of medical measuring devices and communications to identify the condition of patients Remotely) It is clear that most of the answers are directed towards non-approval, with an average of (2.30), meaning that the hospital does not use medical and communication devices to identify the patients' condition remotely. As for the responses of the respondents in the fourth paragraph, which states that (Medical information is published and identified Health status using electronic medicine), most answers tend to disagree with an average of (2.63), meaning that the hospital is not interested in publishing and using electronic medicine, and with regard to the respondents' answers to the fifth paragraph which states that (the patient's condition is followed up and medical and treatment consultations are provided. Through electronic medicine technology) it is clear that most of the answers are directed towards non-approval, with an average of (2.64), meaning that the hospital does not follow up the patient's condition using electronic medicine, and with regard to the sixth paragraph: The responses of the respondents to this paragraph, which states (electronic medicine facilitates the monitoring of experts in their various medical fields) is confirmed, and it is noted through the responses of the respondents Chiral that there is a lack of approval with an average of (2.45), meaning that the hospital does not have electronic medicine to monitor experts in their various medical fields, while The seventh paragraph states (hypothetical medical treatment has a potential for increased error between medical professionals and patients), and it is clear that most responses tend to be disagreeable, too, with an average of (2.55).

**By analyzing the first premise paragraphs, the following became clear**

We note from the above table that the weighted average of all the paragraphs that represent the third sub-hypothesis was (2.41). This indicates that the responses of the respondents indicate that all paragraphs of the third sub-hypothesis are not approved, and they indicate the disagreement, that is, they do not agree with the answers of the paragraphs of the third hypothesis, which states (apply and use digital medicine (electronic medicine) in Aden Specialized Medical Hospital) While the standard deviation of these paragraphs ranged between (0.87-1.12), which indicates the homogeneity of the respondents' responses to this hypothesis, which indicates their disagreement with the answers of the third sub-hypothesis paragraphs.

Through the previous results, we confirm that the respondents do not agree with these paragraphs of the third sub-hypothesis, which states that (digital medicine (electronic medicine) is applied and used in the Aden Specialized Medical Hospital in the Republic of Yemen).

Through the foregoing, the third sub-hypothesis (H3), which states (it applies and uses digital medicine (electronic medicine) in Aden Specialized Medical Hospital in the Republic of Yemen) was rejected, and the alternative hypothesis (H0) was accepted, which states that (it does not apply or uses digital medicine) Electronic Medicine (at Aden Specialized Medical Hospital in the Republic of Yemen)

**Table (4) : The administration of Aden Specialized Medical Hospital contributes to encouraging the use of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in the hospital.**

Axis Question	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Mean	Standard Division	Arrange	Trend
	F	%	F	%	F	%	F	%	F	%				
Q1	1	1	7	8	16	18	57	65	7	8	2.29	0.87	7	Disagree
Q2	4	4	7	8	12	14	60	68	5	6	2.37	0.97	4	Disagree
Q3	5	6	11	13	15	17	53	60	4	4	2.54	1.04	1	Disagree
Q4	3	3	8	10	19	22	48	54	10	11	2.38	0.98	3	Disagree
Q5	4	4	9	10	11	13	51	58	13	15	2.31	0.90	6	Disagree
Q6	6	7	6	7	15	17	45	51	16	18	2.32	0.91	5	Disagree
Q7	7	8	6	7	16	18	49	56	10	11	2.44	1.00	2	Disagree

Weighted Average	2.37	Disagree
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### **Analysis of the second main hypothesis:**

The study proved through the analysis that the administration of Aden Specialist Hospital does not contribute to the application and use of electronic health and does not encourage the use of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in the hospital, and the hospital still uses the traditional and direct method of dealing with patients, as The answers of the study sample were for the first paragraph of the hypothesis, which states that (the hospital administration contributes to the provision of electronic medical records). It turns out that the sample answers are directed towards disagreement with an average of (2.29) and this is evidence that the hospital administration does not provide electronic medical records, and the second paragraph explains through The answers are that the hospital administration does not use electronic medical records and that it does not use traditional medical records, and it is clear that most of the answers tend to disagree with an average of (2.37) in relation to the third paragraph which states that (the hospital administration contributes to the delivery of results to the electronic medical record. For the patient at the appropriate time) it becomes clear that most of the answers are directed towards disagreement, with an average of (2.54), meaning that the hospital does not do that either. Regarding the responses of the respondents in the fourth paragraph, which states that (the administration works to update the patient's electronic medical information on an ongoing basis), most answers tend to disagree with an average of (2.38), meaning that the hospital administration does not work to update the patient's electronic medical information in a regular way. Periodic and continuous, and with regard to the respondents' responses to the fifth paragraph, which states that (the administration uses electronic medical information in making appropriate medical decisions) it is clear that most of the answers are directed towards disagreeing with an average of (2.31), meaning that the hospital administration does not use electronic medical information. In making decisions and with regard to the sixth paragraph, it confirms that the respondents' responses to this paragraph which states (The hospital administration is encouraged to use the electronic portal to practice electronic medicine). It is noticed through the respondents' responses that there is an average disagreement of (2.32), meaning that the hospital does not use the electronic portal to practice electronic medicine, while



the seventh paragraph states (the administration facilitates the dissemination of medical information and recognition of the health status using electronic medicine), it is clear that most of the answers tend to Disagreement with an average (2.44).

**Through the analysis of the second main hypothesis paragraphs, the following became clear**

We notice from the above table that the weighted average of all the paragraphs that represent the second main hypothesis was (2.37). This indicates that the respondents' answers indicate that all paragraphs of the second main hypothesis are not approved, and they indicate the disagreement, meaning that they do not agree with the answers of the second paragraphs of the hypothesis, which states (The administration of Aden Medical Specialist Hospital contributes to encouraging the use of electronic health (electronic medical record and information). Electronic medicine and digital medicine (electronic medicine) in the hospital), while the standard deviation of these paragraphs ranged between (0.87-1.04), which indicates the homogeneity of the respondents' responses to this hypothesis, which indicate their disagreement with the answers of the second main hypothesis paragraphs.

Through the previous results, we confirm that the respondents do not agree with these paragraphs of the second main hypothesis, which stipulates that the administration of Aden Specialized Medical Hospital contributes to encouraging the use of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in the hospital in the Republic of Yemen.

Through the foregoing, the second main hypothesis (H4) has been denied, which states (the administration of Aden Specialized Medical Hospital contributes to encouraging the use of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in the hospital in the Republic of Yemen) and acceptance of the alternative hypothesis (H0), which states that (the administration of Aden Specialized Medical Hospital does not contribute to encouraging the use of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in the hospital in the Republic of Yemen.

Through the respondents' answers to the questionnaire's paragraphs for the three sub-hypotheses, it became clear that most of their answers indicate disagreement with very few answers in approval,

and this is evidence of the lack of application and use of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in Aden Specialized Medical Hospital), where all the weighted arithmetic means for the three sub-hypotheses were as follows.

The weighted average of the first hypothesis (2.41), and the weighted average of the second sub-hypothesis (2.40). The weighted average of the third sub-hypothesis is (2.45), while the weighted average of the hypotheses

The three subsets is (2.42). This indicates disagreement with all three sub-hypotheses and all items of the questionnaire are complete. That is, the first main hypothesis was rejected, which states (electronic health is applied and used (electronic medical record, electronic medical information and digital medicine (electronic medicine) at Aden Specialized Medical Hospital) and the alternative hypothesis has been proven which states the bug (does not apply and does not use electronic health (the record) Electronic medical, electronic medical information and digital medicine (electronic medicine) at Aden Specialized Medical Hospital.

Through the respondents' answers to the questionnaire's paragraphs for the second main hypothesis, it became clear that most of their answers indicate disagreement with very few answers in approval. The study also demonstrated that the hospital administration in Aden Specialized Medical Hospital, which was targeted by the study, does not care, does not use, or encourages the application of e-health ( The electronic medical record, electronic medical information and digital medicine (electronic medicine), where the weighted average of the second main hypothesis was (2.37), meaning that the second main hypothesis was rejected, which states (The administration of Aden Specialized Medical Hospital contributes to encouraging the use of electronic health (the medical record). Electronic, electronic medical information and digital medicine (electronic medicine) in the hospital) and the alternative hypothesis has been proven, which states (The administration of Aden Specialized Medical Hospital does not contribute to encouraging the use of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in the hospital.

By comparing the calculated value of (T), which amounted to (1.599) with Table (T) at the level of significance (5%), equivalent to (1.90), we reject the first main hypothesis which states (electronic health is applied and used (electronic medical record and electronic medical

information). And digital medicine (electronic medicine) in Aden Specialized Medical Hospital in the Republic of Yemen) and we accept the alternative hypothesis which states that (electronic medical record, electronic medical information and digital medicine (electronic medicine) are not used and not used in Aden Specialized Medical Hospital in the Republic of Yemen.

By comparing the calculated value of (T), which amounted to (1.599) with Table (T) at the level of significance (5%), which is equivalent to (1.90), we reject the second main hypothesis which states (The administration of Aden Specialized Medical Hospital contributes to encouraging the use of health. Electronic (electronic medical record, electronic medical information and digital medicine (electronic medicine) in the hospital) and we accept the alternative hypothesis, which states that (the administration of Aden Specialized Medical Hospital does not contribute to encouraging the use of electronic health (electronic medical record, electronic medical information and digital medicine (medicine)). Electronic (in the hospital).

### **Conclusion:**

Through the analysis and use of (SPSS) programs in analyzing the questionnaire's paragraphs and all the axes, hypotheses and tests (T), the following results were reached:

The study proved through the analysis that Aden Specialized Hospital does not apply and does not use the electronic medical record, and the hospital still uses the traditional system to save data and information on patients, and through the answers it was proved that the hospital does not use electronic records to help the doctor distinguish signs of danger and warn the patient in his early beginnings The study also proved that the hospital does not use electronic medical records to help the doctor make a decision, and the study proved that the hospital does not provide modern information systems electronic medical records with special capabilities to process and analyze data, and the hospital does not use electronic medical records to create and link the doctor's instructions, and from During the analysis, it was also proved that the hospital does not use sample analysis and record its results in the electronic medical record, and the results do not reach the patient's electronic medical record at the appropriate time. The study proved through the analysis that Aden Specialist Hospital does not apply or use electronic medical information, and the hospital still uses the traditional system to save patient data and information, and does not use electronic medical information to make appropriate medical decisions, meaning that the hospital does not

continuously update electronic medical information to the patient. The hospital does not save the patient's electronic medical information, and the hospital does not use electronic medical information to facilitate communication and integration of information between the various medical departments and specialties, and the study proved through analysis that Aden Specialized Hospital does not apply and does not use electronic medicine, and the hospital still uses direct medicine. It does not use modern information technology and electronic portal to practice electronic medicine. Through the answers, the hospital does not use electronic files remotely in electronic medicine, just as the hospital does not use medical measuring devices and communications to know the condition of patients remotely and is not interested in publishing and using electronic medicine. The hospital does not have electronic medicine to monitor experts in their medical fields. The study proved through analysis that the administration of Aden Specialist Hospital does not contribute to the application and use of electronic health and does not encourage the use of electronic health (electronic medical record, electronic medical information and digital medicine (electronic medicine) in the hospital, and the hospital still uses the traditional and direct method of dealing with Patients and it became clear through the analysis that the administration in the hospital does not work to update the patient's electronic medical information periodically and continuously, and the hospital administration does not use electronic medical information in making decisions, meaning that the hospital administration does not use the electronic portal to practice electronic medicine.

### **Recommendations:**

Through the analysis and results, the researcher recommends the Aden Specialist Hospital in the Republic of Yemen, the researcher does the following.

The application and use of the electronic medical record to save patient data and information

Use electronic records to help the doctor recognize signs of risk and alert the patient in its early stages.

Use electronic medical records to help the doctor make a decision.

Providing modern information systems with electronic medical records with special capabilities for data processing and analysis.

Use electronic medical records to create and link physician instructions to patients.

Using the sample analysis and recording its results in the electronic medical record.

Delivering the results to the patient's electronic medical record at the appropriate time.

The application and use of electronic medical information in saving data and information on patients, and the use of electronic medical information in making appropriate medical decisions.

Continuously updating the patient's electronic medical information.

Preserving the patient's electronic medical information and facilitating the communication and integration of information between the various medical departments and specialties.

The use of electronic medicine in the hospital.

Providing modern information technology and an electronic portal for electronic medicine practice.

The use of remote electronic files in electronic medicine.

Provide medical measuring devices and communications to know the status of patients from a distance.

The contribution of the Aden Specialist Hospital administration in the application and use of electronic health.

Encouraging the use of electronic health (electronic medical record, electronic medical information, and digital medicine (electronic medicine) in the hospital.

The hospital administration uses electronic medical information to make decisions .

Using the hospital management electronic portal for practicing electronic medicine.

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