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#### Abstract

This research aims to shed light on the reality of crisis management and to identify the most important obstacles that affected the readiness of crisis management to deal with the spread of the Coronavirus (COVD-19) in Babylon Governorate. A case study approach was used because this approach is based on an accurate diagnosis of the crisis, and it tracks it. A complete follow-up, studying what led to it, and the research problem is summarized about the increase in the number of injuries and deaths during the occurrence of the crisis and continuously in Babylon Governorate, and a set of conclusions were reached, the most important of which is the absence of the organizational structure and planning to manage the crisis due to the absence of information and data necessary to contain the pandemic and thus lack of decision-making. Appropriateness, and among the most important recommendations is the need for the higher management in the Ministry of Health to strive to adhere to the standards of the World Health Organization on controlling the spread of the disease and to continuously educate citizens about the need to adhere to preventive instructions and preventive supplies.

**Keywords:** Analyzing, reality, crisis, management, under the circumstances, COVID-19

#### Research methodology

- 1. The research problem: Through the observed statistics, an increase in the number of injuries and deaths was observed during the occurrence of the crisis and continuously, as the epidemic injuries began to spread at a very high speed, which embodied the research problem with the following questions:
- A. What is the mechanism followed by the crisis management in Babylon Governorate before and during the outbreak of the Coronavirus COVID-19?
- B. How prepared is the crisis management in the face of the COVID-19 pandemic and its seriousness in implementing its decisions?
- C. What is the level of health competence available in our health institutions to face the crisis?
- D. What are the reasons that led to the increase in injuries and deaths in Babylon?
- E. What are the most important strengths and weaknesses that help crisis management in monitoring the current reality to provide recommendations and suggestions that contribute to reducing injuries and deaths and visiting recovery cases?
- F. What is the level of health and educational awareness of the Babylonian citizen and the extent of his response to the decisions of the Crisis Cell, religious instructions and educational publications by the Ministry of Health and the supporting departments?
- 2. The importance of research: The Corona pandemic has proven that the issue is not related to levels of progress and development as much as it is subject to calculations that are not yet known, where the importance of research

comes as follows:

- A. Presenting proposals and recommendations to decision-makers from high-level administrators and decision-makers, as it was proved that the weakness of health systems and the absence of crisis management mechanisms in many countries, even if they were advanced, led to a lack of control and a wide spread of this global epidemic.
- B. The current research at the scientific and applied level will contribute to future researchers in this field with comprehensive studies on the issue of crisis management in light of the Corona pandemic, which has spread in most countries of the world and has not been fully contained until now.
- **3. Research objectives:** Knowing the most important obstacles and difficulties faced by the Crisis Cell of Babylon Governorate during its management of the Corona virus outbreak.
- A. Exposing gaps and weaknesses in the strategies followed in dealing with the COVD-19 crisis
- B. Providing the basic requirements for dealing with the crisis, the absence of any of them constitutes an obstacle to the proper implementation of crisis management.
- C. Knowing the preparations of the Ministry of Health / Babylon Health Department for prevention, early detection and response to health risks and epidemics, and knowing the real map of the pandemic and the geography of the distribution of injuries and affected areas by increasing the number of diagnostic tests or establishing a large center away from the deadly routine and running mobile teams for examination, similar to other countries.

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- D. Knowing the organizational structure that comprises the Crisis Management Committee in Babylon Governorate.
- **4.** The research hypothesis: Determining the obstacles that faced the crisis cell at the beginning of the spread of the new Corona virus (COVID-19) in Babylon Governorate will enable it to develop thoughtful plans to control the spread of the epidemic of communicable diseases in the future.
- 5. Temporal and spatial: limits Spatial boundaries: Babylon Health Department, Public Health Department, Operations Department, Planning Department, Public Health Laboratory, Engineering and Projects Department, Main Hospitals, isolation wards and recovery units, and time limits: which is the time for the current research, starting from 2/29/2020 Until 09/01/2020
- 6. Research methodology: The two researchers relied on a (case study) approach, and this method called for further research through field visits to the main sources in which information, statistics and results are available on the mechanism used to contain the COVID-19 pandemic.

The theoretical framework for research First: The concept of crisis management, its objectives, strategy and requirements

- 1. The concept of crisis management: Abdul Hamid (2013: 87) believes that crisis management is a distinct administrative process because it is exposed to a sudden event, and because it needs rapid decisive actions in line with the developments of the crisis, and thus crisis management has the lead in leading, influencing and directing events according to the requirements of affairs. And (Baghdadi, 2014: 57) defined it as "striving to avoid the conflict from turning into a comprehensive conflict at an acceptable cost, which does not include sacrificing an interest or intrinsic value. Conflict here means any conflict that arises at any level of human relations, and in any of its fields," From family relationships to different types of relationships. It was also defined as "the application of strategies designed to assist an organization in which a negative event occurred suddenly as a result of an unpredictable event or as an unexpected consequence of some event that was a risk, which calls for decisions to be taken quickly to limit the damage to the organization while identifying a person to be." Director of a crisis in the event of a crisis (Jafar, 2017: 301)
- Objectives of crisis management: (Al-Azzawi, 2010: 11) and (Al-Kubaisi, 2013: 259) see that crisis management seeks to achieve many goals, represented by the following:
- A. Diagnosing, planning and responding to the crisis, and then resolving it 1499: 2005
- B. Planning for potential crises and containing their damages if they occur.
- C. Working to avoid crises by removing their causes and designing an effective organizational pattern to confront the crisis when it occurs and reduce its effects.
- D. Taking decisions under exceptional circumstances, relying on the best facts and open thinking
- E. Providing the scientific ability to extrapolate and predict current and potential sources of threat, and optimize the available resources and capabilities to limit the effects of the crisis, as it aims to provide scientific capabilities and material capabilities to prepare for and confront and work to return to a normal state through a set of steps and restoration procedures.
- F. 3- Crisis management requirements: What it aims to do in the first place in crisis management is to avoid crisis or reduce tension. Therefore, there are several requirements for the success of the crisis management process, the

- most important of which are the following: (Jafar, 2017: 301-302)
- G. Simplifying procedures and not complicating them and developing regulations and enacting laws that facilitate the management process.
- H. Coordination: The coordination between the crisis management team and other departments and leaders related to the crisis in order to implement decisions and to prevent contradictions in procedures and to ensure that the work is carried out smoothly, easily and harmoniously, as well as the possibility of exchanging resources.
- I. Continuous presence: It is not possible to deal with or deal with the crisis except through the continuous presence of team members in the place of crisis management, where their presence leads to coordination, exchange of views and access to everything that is new about the evolution of the crisis and to take appropriate and immediate decisions and monitoring. Developments and forecasting of the future of the crisis, as well as overcoming difficulties facing implementation.
- J. Delegating the authorities: It is considered very important when dealing with the crisis, as juveniles may be forced to take decisive and appropriate decisions quickly without waiting for the person in charge and who this decision falls under his responsibility and this prevents the business from stopping, wasting time and confusion.
- K. 4- Stages of crisis management: most crises go through five basic stages: (Hussein Abdel Qader, 2016: 218-219)
- L. Detection of early warning signals (warning phase)Usually a crisis, long before it occurs, sends a series of early warning signals, or symptoms that foretell the possibility of a crisis, and unless you find adequate attention, it is very likely that the crisis will occur.
- M. Preparation and prevention (the stage of the emergence of the crisis) It is difficult to prevent the occurrence of something that you did not foresee or warn of the possibility of its occurrence, and for this reason it is necessary to design different scenarios and follow-up events for a crisis that we imagine, and to test all of this so that the role of each individual becomes fully known to him, and this requires the society to prepare sufficiently to prevent crises.
- N. This stage is summarized in preparing means to limit the damage and prevent it from spreading to include other parts of society that have not yet been affected, and this stage in crisis management depends on the nature of the incident that occurred.
- O. Restoration of activity (crisis subsidence phase): This stage comes after the confrontation, knowing the losses, assessing them, adapting to the situation and returning things to normal, and this stage is characterized by some extra enthusiasm and the group's solidarity in facing the danger.
- P. Learning: The last stage is continuous learning and reevaluation to improve what has been achieved in the past.

# Second: "An introductory overview of the emerging corona virus, its symptoms, methods of diagnosis, and the strategic objectives to confront it

1. An introduction to the emerging corona virusCOVID-19: In Arabic it means (wreath of flowers or crown-aura) due to the "distinctive appearance of pharos (the infectious form of the virus) which appears under an electron microscope with the presence of surface protrusions, which gives them an appearance in the shape of the king's crown or the solar corona, as these protrusions are proteins It fills the surface of the virus and determines the tropism of a host. On the eleventh of March of 2020, the World

Health Organization announced that the disease had turned into a "pandemic" due to its spread among humans in a large area at the continental level (Abdul Hussein, 2020, 7).

2. Symptoms of an emerging corona virus: The severity of the symptoms varies from person to person, as some have few symptoms and may worsen for others, and among these common symptoms are: (Al-Agudi, 2020, 12) (High body temperature, cough, difficulty breathing, headache, joint, muscle and bone pain, general fatigue and weakness with dizziness and imbalance, feeling of chills, diarrhea and abdominal pain, loss of sense of smell or taste or both ...) There are less common symptoms "such as: (Redness or pain in the eye, red blisters in the fingers and toes with itching or pain, and there may be symptoms resulting from more severe complications such as stroke, angina, gastrointestinal bleeding or symptoms of diabetes.

#### 1. Methods for diagnosing the emerging corona virus:

- Basic confirmatory checks: "PCR" polymerase chain reaction
- A test to detect COVID-19 antibodies Computed Tomography scan (CT scan)
- X-ray machines
- C- reactive
- protein (CRP)

#### 2. Checks:

It is a series of tests conducted to ensure the safety of the body of the suspected person, including liver tests, a picture of regular blood tests, analyzes of kidney function, in addition to chest radiographs.

And by collecting the results of the above tests (clinical examination) and the patient's history, along with the results of the basic and chock tests, it is possible to determine whether the virus is present in the person's body or not.

# 3. Strategic objectives for dealing with the COVD-19 virus:

The World Health Organization declared on January 30, 2020 that the outbreak of the new Covid-19 virus represents a public health emergency of international concern. Cases, contact tracing, and encouragement of social impact measures commensurate with risk.

- Reducing the transmission of infection from one person to another, including the transmission of infection between contacts of health practitioners and the transmission of infection outside China.

Early identification, isolation and care of infected cases.

Knowing the characteristics of the virus related to the severity of the disease, the extent of transmission, and treatment options, and accelerating the development of diagnosis, treatments and vaccines.

Communicating with the communities about anticipated risks and dealing with wrong information.

Minimizing social and economic impact through multi-sector partnerships

The third topic: the practical side the increase occurring at the end of May for the year (2020) in the number of infections with Coronavirus, which was not recorded in numbers after that until the end of the study period, called us to search for the problems and the reasons that led to this remarkable increase and not contain the spread of the disease in Babylon Governorate and where it was Through field visits, the following results were obtained:

#### - The first field tours: (number of injuries and deaths)

Through weekly periodic visits to the Babylon Health Department / Public Health Department / Communicable Diseases Control Division / Respiratory Diseases Control Unit located in Al-Bakrli neighborhood, numbers of injuries, deaths and recovery cases for Babylon Governorate were obtained and the numbers of Iraqi arrivals were obtained, which lasted until 5/5 / 2020 Although the last specific date was until 3/15/2020, in addition to knowing the number of health personnel who were infected with the emerging corona virus in the health institutions of the Babylon Health Department.

Studies have shown that the number of infections is relatively small from the beginning of the first infection on 2/29/2020 in Babylon Governorate until the end of May due to the comprehensive ban imposed by the Diwaniya Order Committee of No. 55 of 2020, which in turn led to a lack of community mixing and a lack of transmission of infection.

History, number of infections, sequence. However, the increase in injuries and deaths began to clear, as shown in Table 1, after May of 2020.

**Table 1.** shows the cumulative monthly total of the number of cases of Coronavirus in Babylon Governorate during the study period

No.	The number of injuries	Date
1	1	29/2/2020
2	6	28/3/2020
3	42	28/4/2020
4	68	28/5/2020
5	1451	28/6/2020
6	5540	28/7/2020
7	10324	29/8/2020

It may be due to the following reasons:

- 1. On 23/5/2020, the Supreme Committee for National Health and Safety issued the lifting of the comprehensive curfew and the imposition of a partial curfew, that is, the reopening of shops and markets during daylight hours as preventive measures to limit the spread of the virus, which coincided with the days leading up to the end of the blessed month of Ramadan and due to the customs and traditions prevailing in Arab countries in general, and our country in particular, in celebration of the end of the month of Ramadan and in preparation for the reception of the blessed Eid al-Fitr. This has led to an increase in the number of citizens in public places, public and popular markets to buy Eid supplies and clothes without adhering to the preventive measures.
- 2. The scarcity and loss of medical supplies for the preventive measures represented by masks, gloves, sterilization materials and fumigation, in addition to the high prices.
- 3. The absence of the rule of law and the weak implementation of government decisions regarding the implementation of the ban (partial, complete)
- 4. The reluctance to implement the decisions issued by the higher health authorities, including the closure of border crossings and airports at the beginning of the crisis.
- 5. The injured hide the reality of their illness or their families from the health authorities, perhaps shyness from society or ignorance and fear of quarantine measures and the flight of some, as happened in some hospitals.
- Most of the new Corona virus infections are concentrated in the health cadres working in health institutions because of their shortage of prevention supplies and sterilizers, with great pressure at work.
- 7. There was no specific hospital to receive and examine the infected or suspected cases of the emerging corona virus, but all (13) hospitals were.
- The lack of societal awareness of the vast majority of citizens and a complete lack of understanding of the

dangers of the disease, despite the Ministry of Health's warnings that the virus is recent.

And through the results obtained from the Public Health Department with regard to deaths, an increase in the numbers was noted, as noted in the Table (2)

**Table 2.** The monthly cumulative total of the numbers of deaths of people infected with the emerging corona virus in Babylon.

No.	Deaths	Date
1	0	29/2/2020
2	4	28/3/2020
3	4	28/4/2020
4	4	28/5/2020
5	35	28/6/2020
6	179	28/7/2020
7	396	29/8/2020

It is noted from Table No. (2) The clear increase in the number of deaths from the virus, which may be due to the following reasons:

- 1. The low number of deaths in the first three months compared to the beginning of June and after, due to the lack of injuries and the number of hospitalized people due to this disease, which led to the provision of better medical and health service than the following period.
- 2. With the beginning of the month of June and the lifting of the comprehensive ban and the increase in social mixing, which in turn led to the tremendous increase in the number of injuries and consequently the increase in deaths due to the momentum in hospitals, the inability to prepare to receive these numbers and the inability to provide optimal medical service.
- 3. The lack of a clinical expansion commensurate with the size of the injuries (as shown in Table 4), which contributed mainly to the momentum and pressure on the outputs of health services provided to patients.
- 4. The constant change in global treatment protocols requires the addition of new treatments which are not available in our country and it is not a secret that one of the long and difficult routines in the administration of the state in general and the import, examination and registration of medicines in particular has contributed to delaying the provision of specialized and life-saving medicines, in addition to the high prices In the private sector due to its entry in non-fundamentalist ways.
- 5. Due to the current momentum, financial and

- administrative corruption and unknown reasons, the problem of oxygen shortage occurred in some hospitals, which is considered one of the most important factors in treating the injured.
- 6. Most of the dead with the new Corona virus are the elderly or those who suffer from chronic diseases or respiratory diseases such as asthma and bronchitis, which are risk factors that increase deaths if medical services are provided to them early and in an ideal way.
- 7. Some or most of the deceased did not go to the hospital until after the disease had worsened and a long time had passed since the infection, which leads to a lack of control of the virus due to their reliance on home quarantine.
- 8. Some people refused to enter hospitals "categorically" even when the health condition deteriorated as a result of what was rumored on social media about the lack of seriousness of going to hospitals by some people far from the health field, or some claiming that they belong to it.
- 9. The increase in cases of abuse by the patients' families when the condition of their relatives worsens on the health personnel, especially "doctors in particular, coinciding with the outbreak of the COVID-19 pandemic, which negatively contributes to the safety of patients and undermines the ability of doctors to perform work tasks successfully".
- 10. Perhaps the lack of doctors specializing in the field of respiratory system in Babylon governorate (not exceeding 8 doctors) caused an increase in deaths due to their inability to absorb and follow up the number of major injuries.
- The second field tours: (number of resuscitation devices)The two researchers made continuous visits to the Babylon Health Department, located in the Al-Iskan neighborhood, to know the instructions and measures taken from the following sections:
- 1. Office of the General Director / Crisis Cell:
- 2. Planning Department:
- 3. Projects and Engineering Services Division / Medical Devices Division:
- 4. Department of Operations and Emergency Medicine:
  By visiting the Projects and Engineering Services
  Department
  - / Medical Devices Division to find out the number of ventilators, which are considered one of the basic factors for the life of a patient severely infected with the emerging corona virus, and as noted in Table (3)

Table 3. The number of CPR devices until the end of August in Babylon Governorate hospitals

Number of pulmonary resuscitation devices	The number of valid devices	Number of idle devices	the hospital	No.
2		2	Marian Education City	1
53	53		M. Hilla tutorial	2
Dedicated to children (39)	13	26	M. Babylon for birth and children	3
6	2		M. Al-Hashemiya General	4
1	1		M. The general denominator	5
37	35	2	M. The honest Imam	6

Based on the preliminary data and data on the disease, the proportion of those who need intensive and intensive care (which includes artificial respirators) among (Covid-19) patients is about 5-6%, the death rate from disease increases in areas with a high number of cases, The high number of cases causes an increase in the number of people who need artificial respirators, which exceeds the capacity of the available medical facilities. The available in Iraq (539) devices or close to this number according to the statistics at the end of last year, either in Babylon Governorate, through

Table (3), the following was noted:

1. Although there are pulmonary resuscitation devices in some hospitals (most of them are in Al-Hilla Teaching Hospital and Imam Al-Sadiq Teaching Hospital), their number is small and not commensurate with the number of patients who suffer from respiratory deficiency for a long time until it improves and therefore is in permanent employment and therefore often "Patients are not referred to other governorate hospitals because there are not enough devices.

- 2. With the onset of the (COVID-19) pandemic and the increasing number of patients infected with the emerging corona virus, the shortage in the number of resuscitation devices became evident, which led to a "great pressure" on the pulmonary resuscitation devices, so some of them became expendable (unfit for work)
- 3. The increase in the number of ventilators in Al-Hilla Surgical Hospital was only, and it is small in relation to the urgent need for it in this pandemic. As for the rest of the hospitals, they remained the same number until now, except for Al-Hashemiya Hospital. (4) devices were transferred from Babylon Hospital for Maternity and Children Although it is intended for children, it has been modified to be suitable for adults as well. "But it is in the process of being installed and has not been used until now, despite the passage of 7 months since the beginning of the pandemic.
- 4. It is noticeable that there are a large number of pulmonary resuscitation devices in Imam Al-Sadiq Hospital (PBUH), of which there are (35), in working order, even though they do not contain an epidemiological ward.
- 5. Failure to allocate the budget for the year 2020 may have had a role "in not providing these devices, as well as the inability to replace and repair consumable devices due to their high cost that did not receive full support from the local and central government".
- 6. The aid represented by donations from the (We Are All Yakum) campaign (4 devices) was the largest campaign undertaken by the people of Babylon Governorate to provide pulmonary resuscitation devices, as well as the Pharmacists Syndicate (2 devices) and a number of devices coming from Erbil Governorate (3 devices) that had a role "Significant" in providing the (Ventilator) devices at Al Hilla Surgical Teaching Hospital.
- The third field tours (: clinical capacity of epidemiological lounges

The two researchers made periodic visits to the hospitals of the Babylon Health Department, including (Marjan Teaching Hospital, Al-Hilla Teaching Hospital, Al-Noor Hospital for Children, M. Al-Imam Al-Sadiq Teaching), to see the medical and health staff, the number of beds and patients in the epidemiological wards, isolation wards, recovery lounges, hotel, treatment and diagnostic services. Provided for inpatients. In addition to knowing the number of beds prepared in epidemiological corridors.

Through visits to epidemiological corridors in hospitals and isolation lounges, the number of beds prepared for the injured and the speed of their introduction and absorption to the number of infected people as a result of the exacerbation of new Corona virus infections in Babylon Governorate were known as shown in Table (4)

1. From Table No. (4) we note that despite the increase in the number of beds in the epidemiological corridors, it was insufficient to accommodate the increase in the number of injuries and below the required level, and the following reasons may be behind it: increase in clinical capacity occurred in places other than hospitals until the end of the study period, similar to the rest of the governorates, and no work was done to exploit and prepare closed public places as a result of the pandemic and make them as places of quarantine or isolation or suspicious lounges, for example, "Babylon tourist resort, places of worship, party headquarters and even halls." Study in universities in

- particular, and that they are equipped with cooling systems, as the holy shrines had a "great" role in increasing the clinical capacity in the rest of the governorates through the opening of healing centers, which numbered more than 20 centers and hope lounges, which numbered more than 10, to increase the clinical capacity in all governorates with specifications. Modern global and early in the pandemic, except for Babylon Governorate.
- 2. low-cost building or annexes or caravans have been constructed by the governorate or the health department, which are used as isolation or suspicious spaces and squares of hospitals and their buildings, and their monitoring and management is entrusted to the Public Health Department.
- 3. Neither the governorate nor the crisis cell contributed even to increasing one "extra" bed during this period, exploiting the building of the former provincial council and preparing the buildings under construction in the governorate, the governorate council, and the buildings affiliated to it. It was content with issuing an order to impose and lift the ban only.
- 4. Hospitals were originally full of discharged patients (such as heart and kidney diseases, respiratory diseases, and tumors) or as a result of daily accidents to which the citizen or obstetric and gynecological operations are exposed, and they are originally less than the global standard average for the number of beds with population density in addition to some of them
- 5. The decision of the National Health and Safety Committee regarding the closure of private doctors' clinics during and after the ban period for intermittent periods led to an increase in the number of visitors to government hospitals that were overcrowded with the number of people infected with the new Corona virus, which caused "great" pressure that led to the consumption of medical, health and

treatment capabilities, and even contributed to an increase in mixing Societal and further spread of the epidemic.

- 6. The failure to approve the financial budget for the year 2020 so far has been a reason for "affecting the health sector budget and thus the difficulty of providing material liquidity for the implementation of health projects and increasing the clinical capacity in addition to the necessary medical supplies and equipment.
- 7. Neither the representatives of Babylon Governorate in the House of Representatives nor the former members of the House donated to support the health sector and find some immediate solutions. Even the major merchants and businessmen in the governorate did not have a "mentioned role. Rather, donations were limited to medical unions and some civil activists, but they are not able to block Need

Fourth field tours: (number of laboratory tests)

The two researchers made field visits to the Public Health Laboratory of M. Al-Hillah Al-Jarrahi being the only laboratory that has a "PCR" polymerase chain reaction in Babylon Governorate so far.

In follow-up with the Public Health Laboratory, which contains a PCR examination unit for the emerging corona virus, an increase in the number of examinations has been observed for citizens who suffer from symptoms or have contact with confirmed cases of infection with the emerging corona virus (COVID-19), as shown in Table (5)

Table 4. The clinical capacity of the epidemiological corridors in Babylon Governorate hospitals during the study period

Clinical capacity of confirmed cases Until 8/29/2020	Bed capacity in April	Clinical capacity in the epidemiological ward the beginning of the pandemic	name of the hospital	N0.
50	44	14	Marjan Education City	1
122	24	10	Hilla tutorial	2

-	12	8	The light for children	3
-	-	10	Babylon for birth and children	4
22	8	4	The general denominator	5
38	13	11	General attempts	6
30	8	4	Hashemite General	7
8	-	2	Ibn Saif for children	8
12	6	2	Imam Ali (PBUH)	9
5	10	4	Shomali General	10
24	20	8	Alexandria General	11
20	10	4	General Musayyib	12
-	-	-	Imam Al Sadiq	13
30	-	4	The public sponsor	14

Table 5. The cumulative total of the number of examinations performed in Babylon Governorate during the study period.

No.	the month	The cumulative total of the number of examinations
1	March	0
2	April	295
3	The month of May	1344
4	June	8970
5	July	13369
6	The month of August	15445

With the end of May 2020, the number of examinations began to increase, in addition to increasing the working hours of the laboratory cadres over a 24-hour day. As for the samples, they are kept in special cooling devices at a temperature of (-8) degrees Celsius, after which the results of the tests are sent to the Public Health Department in Babylon Governorate Then it is sent to the Ministry of Health to be unified with the rest of the governorates for the purpose of announcing the daily situation of Corona virus in the country. Despite the presence of another (PCR) device in the Imam Al-Sadiq (PBUH) Teaching Hospital, an administrative order was issued to transfer it to the Public Health Laboratory for the purpose of increasing the results of the examination for Corona virus, but the decision was not implemented because the device was not originally handed over to the department by the implementing company and remained Not used in hospital. Through Table (5), the following results were reached:

- 1. The beginning of the first examination that was carried out in Babylon Governorate is on 3/25/2020, but the results of the recorded tests started on 4/14/2020. Perhaps the reason for this is that the results were sent to Baghdad to verify and match the results of the PCR device. Concerning the diagnosis of the new Corona virus that belongs to Babylon Governorate until approval is obtained to approve the results of the tests that appear from the Public Health Laboratory / Babylon Health Department as a basis for approving the examinations for the governorate.
- 2. The delay in the discovery of accurate examination tools (devices, examination kits, accurate method for taking swabs, trained cadres ... etc.) due to "the newness of the disease and the difficulty in providing materials and supplies for diagnostic tests, due to the increase in global demand and the difficulty of moving internationally" to the affected countries As a result of the global air travel ban, it contributed to the delay in conducting the examinations and the lack of their number, and consequently the lack of accurate diagnosis and the lack of knowledge of the geographical map of the distribution of the affected areas, and consequently the lack of quarantine and the implementation of isolation or regional quarantine that led to the failure to control the pandemic .The inaccuracy of the test results and the delay in the results of their announcement, especially in the beginning, contributed to a great confusion among citizens and undermined their confidence, and this is what social media

- bloggers exploited and gave them an opportunity for waves of sarcasm and questioning of its credibility.
- 3. The small number of tests conducted so far in Iraq in general and in Babylon in particular, relative to "the number of real infected people does not give the number of real daily infections, and this is what Iraqi doctors have confirmed that there are hundreds of confirmed cases of the emerging corona virus that are observed in private clinics and are not listed in Official statistics are a result of the "absence of active monitoring and the small number of examinations performed".
- 4. The device for examining COVID-19 represented by (PCR) has been provided in the rest of the governorates at least 2-3 devices. As for Baghdad, it contains (7) devices in addition to other devices under installation, while in Babylon Governorate it contains Only one device, which contributed to the momentum and confusion at work, the delay in announcing results, and the small number of daily checks.

#### Conclusions

- 1. The absence of an integrated organizational structure, which must be composed according to the type of crisis the country faces, for example (public relations, security, legal, operations, health, finance, human resources.
- 2. The absence of planning to manage the crisis due to the absence of the necessary information and data to contain the pandemic, and consequently the failure to take appropriate decisions, especially with regard to decisions (comprehensive and partial).
- There is no specific vaccine or treatment yet. Rather, treatment protocols are constantly updated based on clinical trials.
- 4. Failure to evacuate Iraqis in the affected countries at the beginning of the crisis, without taking health decisions, delaying the provision of testing devices that are used to examine arrivals from abroad, in addition to getting lost in the quarantine of arrivals and the required checks.
- 5. Failure to fully adhere to the curfew due to the lack of seriousness of the security services in applying this and negligence and overlook the imposition of financial fines to force citizens to adhere to the ban procedures and commitment to follow preventive measures such as wearing masks and gloves, and using sterilizers and disinfectants as is the case in neighboring countries, in addition to the lack of community awareness.

- Failure to provide free or subsidized health protection supplies by the government, similar to other countries, in addition to the absence or lack of efficiency of local manufacturing.
- 7. The lack of financial allocations for such kind of crises.
- 8. The failure to approve the fiscal budget for the year 2020 so far had a "significant" effect in not providing many of the necessary requirements to support and support health institutions in the face of the (COVID-19) pandemic in terms of providing preventive supplies and medical equipment, which led to reliance on donations that were made Obtaining it from the unions and campaigns carried out by the people of Babylon Governorate in support of hospitals, but it is not sufficient to fill the deficiency.
- 9. The absence of the element of people's confidence in the leadership, which is considered a major determinant of the success of confronting the threat, while not combating rumors and fake news with scientific evidence and not following them up in court".
- 10. There is a severe shortage of financial and human resources for hospitals, and the inadequate working conditions for the possibility of providing health services of high quality
- 11. Not to exploit public buildings and facilities such as Babel Resort or Babel Tourist Hotel and other institutions that can be used for isolation or to increase the bed capacity, in addition to not establishing fast and low-cost caravan health complexes by the local government to reduce the momentum on hospitals while not providing the drugs suggested in the protocols Treatment by the central or local government for a short time, in addition to the lack of artificial respirators, which contributed to the increase in deaths in our governorate and the worsening of the health situation.
- 12. The scarcity of necessary medicines to treat the virus and its complications so far, and the continuous depletion of some of them from time to time.
- 13. Insufficient testing equipment for the emerging corona virus (PCR) in the public health laboratory, and it is limited to one center so far.
- 14. The ill-considered application of administrative decentralization by transferring some powers from the Ministry of Health to local governments, which led to the perpetuation of wrong practices, the multiplication of gaps and the misallocation of human resources.

#### Recommendations

- 1. The necessity to choose one or more specific hospitals in Babylon Governorate to be special for diagnosing and quarantining people with the new Corona virus to contain the disease and according to the opinion of the committee in charge of choosing a hospital in the governorate center, as Imam Al-Sadiq Hospital is considered the best solution for its large clinical capacity, its modernity, and its containment of pulmonary resuscitation devices.
- 2. The need for the higher management in the Ministry of Health to strive to adhere to the standards of the World Health Organization on controlling the spread of disease by providing preventive supplies for all health cadres in health institutions, especially since there are predictions by epidemiologists and the World Health Organization that two waves of the epidemic will come in the near future and that the end The pandemic could last until 2022.
- 3. The need to provide sterilization gates and obligate everyone to provide them at the entrances of hospitals, government and private health centers, malls and cafes, and collect state departments to sterilize auditors and workers, in addition to providing a thermometer for the

- purpose of measuring temperature remotely to ensure early detection of those infected with the virus (COVID-19).
- 4. The necessity to provide a medical and laboratory team to examine the health personnel working in health institutions continuously to ensure their safety and not to transmit the disease, to provide a hospital or a special ward to treat them and to ensure that they return to service to avoid the shortage of working cadres..
- 5. Restructuring the crisis cell regarding the emerging corona and activating it, and embedding doctors and epidemiologists in it, and taking specialist opinions to avoid confusion and randomness.
- Working to provide job security for health cadres by activating the penal laws for assaulting employees while performing their work by patients' families.
- 7. Continuous awareness of citizens of the need to adhere to preventive instructions and preventive supplies.
- 8. Developing hospitals and health buildings in line with the standards of the World Health Organization and providing financial liquidity for health institutions to ensure the sustainability of work, avoid shortages of medicines and medical supplies, and give the issue the utmost importance, especially as we approach the winter season in which colds, colds, pneumonia and respiratory infections are common.
- Securing the financial and human resources for hospitals on an ongoing basis to ensure that services are provided at a decent level and in accordance with international standards.
- 10. The necessity of increasing the clinical capacity in the epidemiological corridors by exploiting the vacant spaces and caravans in hospitals, provided that they are isolated from the regular auditors to ensure that there is no mixing and the spread of disease.
- 11. Supplying the Public Health Laboratory with additional equipment to test for the emerging corona virus, which is a device (PCR) and follow-up of diagnostic techniques discovered in line with the continuous increase in the number of injuries in Babylon Governorate.

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