
Assessment of Governmental-Funded International Referral Program to Treat Patients

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ABSTRACT

In Iraq, international referral programs have been adopted, governed by specific inclusion measures. Basra government has adopted an international referral program as a solution to local medical problems, which targeted several countries, mainly Turkey. Since, there has been no party evaluated this program, this study was conducted to assess an international medical referral program. To conduct the study, the assessors used the database at Basra Government offices to obtain the relevant information to be used as a reference to improve the program in the future. The total number of patients was 833, 53% of them were males and 59.42% were children. After re-assessment of medical conditions of the referred patients, 94.8% of the patients were managed successfully, 2.1% of them did not need surgery, in 1.1% the disease stage was inoperable, 0.6% were not fit from health point of view to be operated on, and 0.4% died. Comparative assessments of the program with similar programs implemented in other countries and in Iraq need to be conducted. The assessment showed a high treatment success rate among the referred patients, which can arrow to that there were some gaps in the Iraqi health system in the fields of pediatric CVS diseases, bone marrow and liver transplant and ophthalmology should be fixed. These gaps include shortage in qualified resources in Iraq.

KEY WORDS: International referral, Iraq, Assessment

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INTRODUCTION

Globally, increasing numbers of patients travel to various destinations worldwide for medical/surgical care. Driven by a number of motives, these “medical tourists” seek solutions for their medical problems at affordable prices in other countries⁽¹⁾. In Iraq, international referral programs have been adopted, governed by specific inclusion measures.

Although common barriers to successful referral are generally known, the relative significance of these barriers should be assessed in each country or region to guide the design of targeted appropriate interventions to improve referral outcome⁽²⁾.

On the other hand, the country of referral destination needs also to be evaluated according to specific criteria, such as economic conditions, and regulatory policies. Also, costs, hospital accreditation, quality of care, and physician training impact the choice of healthcare facility. These factors must be considered to evaluate the effectiveness and efficiency of the referral programs⁽³⁾.

The absence of evaluation of the international medical referral programs leads to unmet needs. Especially, when this is added to the common health systems problems, when highly fragmented underfunded healthcare systems already face many challenges. Also, international referral and health inequities shape each other in low- and middle-income countries⁽⁴⁾. Therefore, such evaluative efforts need to be

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carried out in order to plan for and support an integrated health system.

A governmental international medical referral program has been adopted in Basra Governorate since 2013. Till the time of this assessment more than 4000 patients had been referred to foreign countries, Turkey, Iran, and India. The reasons for choosing these countries over others have been reasonable health services costs, the presence of direct flights between Basra and the cities in which the hospitals are located and ease of obtaining a visa for Iraqi citizens.

A comparative or descriptive evaluation of the referral process of this large number of referred patients had not been conducted before. This has motivated the researchers to conduct an evaluative study of the program's inputs and outputs in order to present recommendations to improve the results of referral.

The main aim of this study was to use the output/ outcome of an international referral program to address the shortages in a national medical care system.

RESULTS

Figure (1) shows that the gender of beneficiary patients was nearly equally distributed.

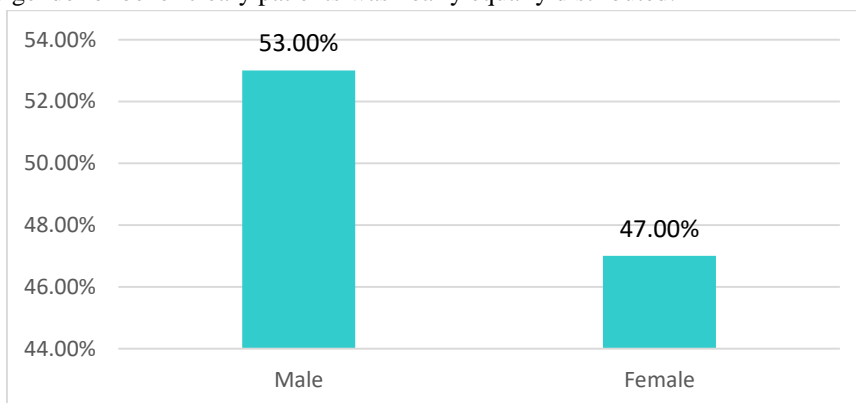


Figure (1): Distribution of the patients according to gender

According to age distribution, it is clear in Figure (2) that about 59.42% of the beneficiaries were children.

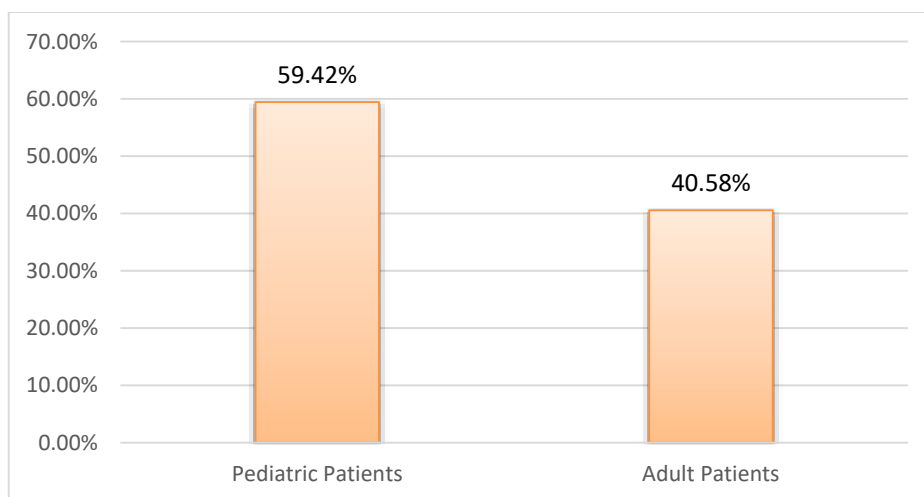


Figure (2): Distribution of the patients according age

METHOD

The research data were collected from the database of the Committee for the Treatment of Patients Outside Iraq at Basra Governorate office. It contains all the data of patients whom were referred outside Iraq for the purpose of treatment. The researchers received electronic version of the database and after studying it, they were fed into an electronic statistical package and analyzed in percentages. Basically, they were classified, coded and divided according to age group, gender, specialization and other divisions needed for the purpose of research.

Ethically, the researchers followed anonymity, privacy, confidentiality, and honest recording of data principles. An ethical approval was obtained from the Research Ethics Committee at the Iraqi Association for Medical Research and Studies, decision number 47 in December 5 2021. Moreover, the study was carried out in accordance with the Helsinki Declaration Principles.

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It is clear from Figure (3) that the most frequent reason behind the referral program were the open-heart surgery including

cardiovascular diseases followed by ophthalmological diseases that needed therapeutic surgeries.

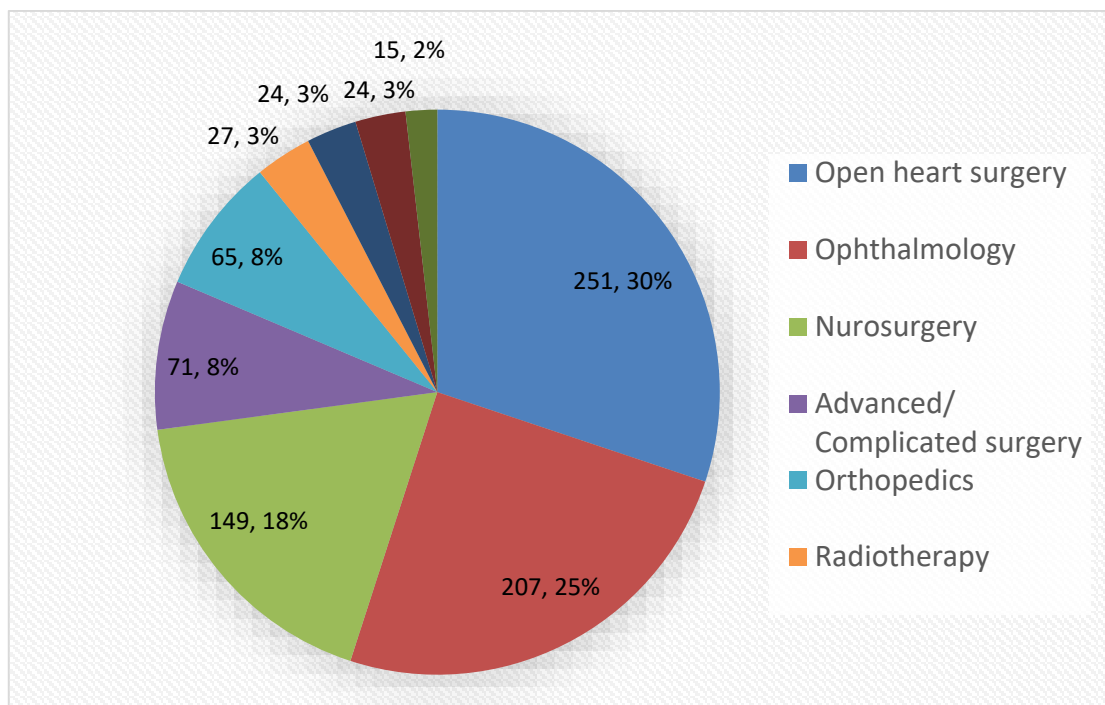


Figure (3): Distribution of the referred patients according to the type/ system of the disease

Most of the referred patients within the government adopted program, were referred to Turkey, when, in 94.80% of the

referred patients, the targeted intervention was successful (Figure (4)).

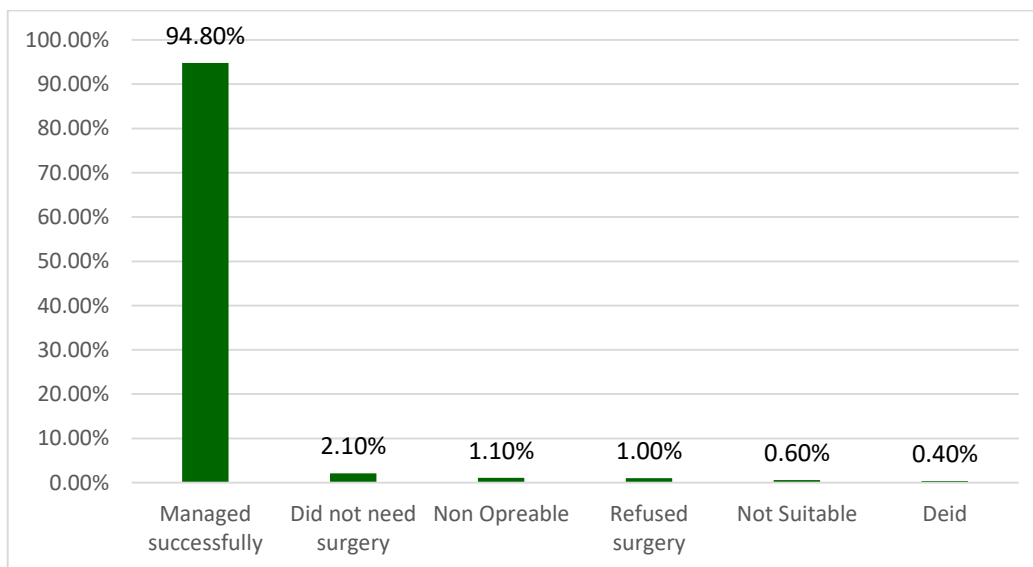


Figure (4): Distribution of the patients according to fate of participation in the program

Figure (5) clarifies that the deaths occurred in patients with cardiovascular diseases, and orthopedic diseases.

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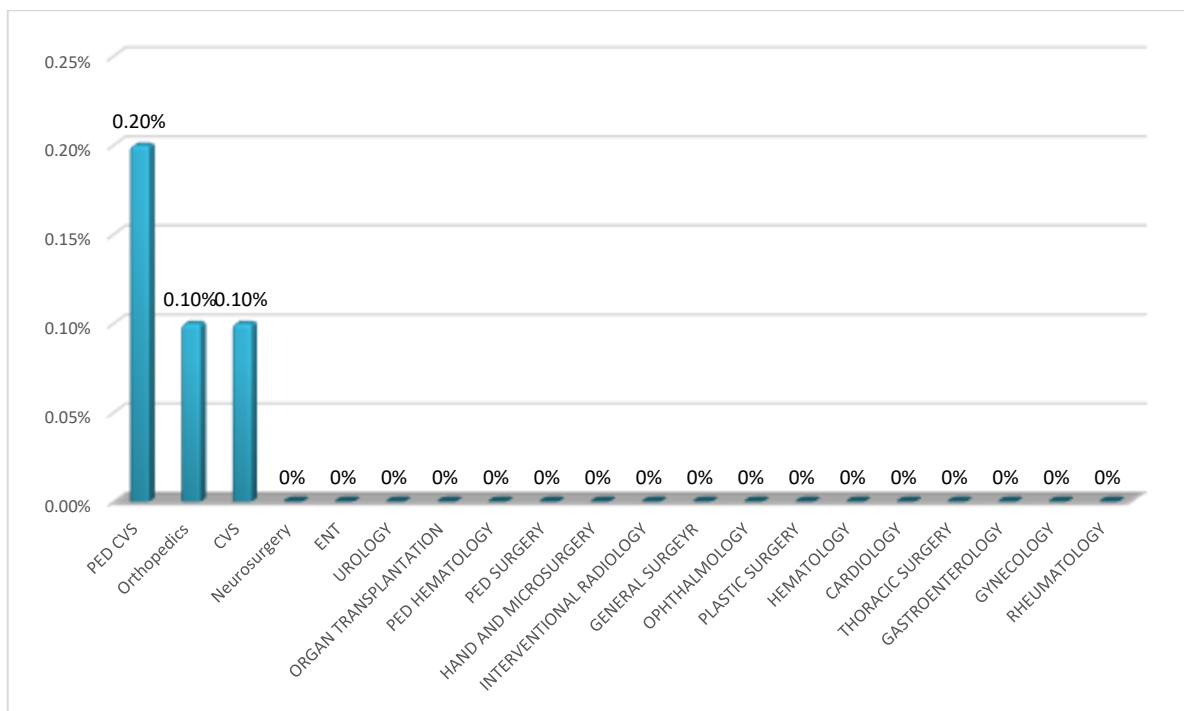


Figure (5): post-management death rates among patients distributed according to the type/ system of the disease

Inoperable referred case rates ranged from 0.1% to 0.3%. These included patients with cardiovascular diseases, patients with neurosurgical diseases, patients with orthopedic diseases, and patients with urosurgical diseases. Patients who

were found not fit for surgery due to pathologies other than the disease of concern were mostly those who were referred for organ transplantation surgeries (Figure (6)).

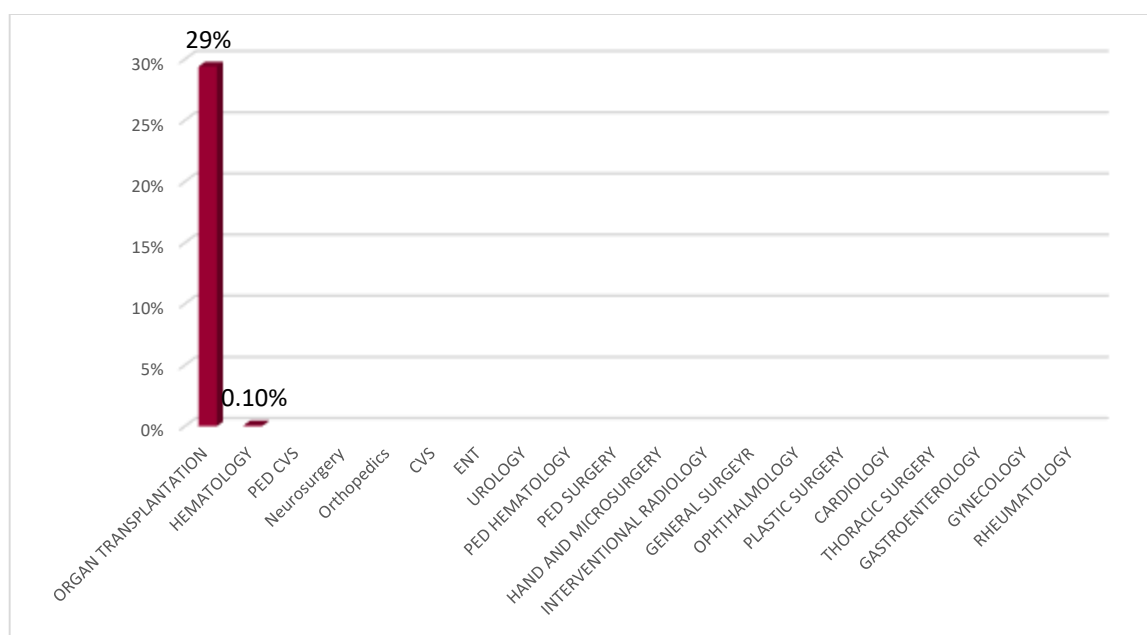


Figure (6): Patients who were found not fit for surgery due to pathologies other than the disease of concern distributed according to the type/ system of the disease

Patients who refused, by themselves or by their chaperon parents, to be managed after arrival to the hospital were those who needed neurosurgery, pediatrics needed hematological intervention or cardiovascular surgeries, patients needed orthopedic surgeries, or those needed general surgical intervention. Those who were assigned as their conditions did not need surgical intervention, after their arrival to the referral

hospital, were patients referred to undergo orthopedic, neuro, cardiovascular, organ transplantation, and micro surgeries and hematological and radiological interventions.

DISCUSSION

The international medical referral is a widely used approach to help patients with complicated cases receive effective

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interventional services. This has led the Basra government and health authorities to sponsor an international referral program to Turkey, IRI, and India. This study was conducted to partly monitor and evaluate this program.

The nearly equal distribution of beneficiaries gender may refer to that there was no gender bias in selecting patients and the main determinant of selection was the diagnosis, severity of disease, and inability to manage it inside the country. This can be one of the positive points of the program, when it may point out equity and justice.

The high percentage of children, mostly with cardiovascular diseases; patients who needed open heart surgery; and ophthalmological diseases among those referred may be due to shortage in qualified medical doctors and/or supportive staff to manage such conditions; or shortage in well-equipped medical facilities. It may also refer to a high incidence of the diseases to a rate more than what the health system capacity to deal with.

Turkey was the referral destination of most referred patients when compared to India, because of the short-time direct flights and availability on daily basis, in addition to good weather, availability of Halal food, and high patient preference. Regarding IRI, the contract was only for ophthalmological surgeries.

The presence of patients who refused to be managed after arrival to the hospital may indicate that there was a non-competent level of patient satisfaction after arrival and/or condition assessment before the referral decision was made.

The 94.80% success rate among the referred patients may generally refer to acceptable standards to nominate the needy disease conditions and acceptable standards to refer patients. These success rates for most of the surgical interventions, according to the category, were comparable to figures found in other parts of the world. For example ophthalmological surgeries in this study had a rate of 84.05% compared to 76.5% in Japan⁽⁵⁾. Orthopedic surgeries had a rate 98.7%, compared to 93.84 - 98% in USA⁽⁶⁾. The neurosurgeries had a rate of 74.94% compared to 97% in the UK with 100% early survival compared to 3% death in same study⁽⁷⁾. Bone marrow transplantation success rate was 73.33%, early procedural death was zero compared to the figures of the European society of hematology of 1-year survival is 65.6%⁽⁸⁾. Liver transplantation showed 50% success and 2.5% mortality, compared to the U.S figure of only 8.9% failure and 3% death; this can mostly be linked to the advanced clinical state of the referred patients of this transplantation category⁽⁹⁾. Open heart surgery showed a greatly lesser figure of procedural death than what was found in European multicenter study 0.08%⁽¹⁰⁾ with a success rate of 90.03%.

The rate of deaths occurred in some referred patients; the inoperable referred case rates; those who were found not fit for surgical interventions; and those who were assigned as

being in no need for surgical intervention after their arrival to the referral hospital may arrow to a non-strict procedure, although it is very small. The reasons for not performing a number of surgeries were for purely scientific and technical reasons, such as not undergoing open heart surgeries due to increased blood pressure in the pulmonary artery and Eisenmenger syndrome due to the delay in receiving treatment; the presence of non-feasible corneal replacement surgeries because of damage to the optic nerve or damage to the retina; the operations were not feasible due to severe injuries to the spinal cord and paralysis that cannot be repaired surgically; the surgeons were not able to conduct operations for some widespread cancerous tumors because of their danger to the patient's life; the co-existence of multiple health problems that prevented them from performing complex orthopedic operations; and not having marrow or liver transplants due to problems matching donor tissues.

CONCLUSIONS

Generally, the program well-followed the principles of medical care, patient's beneficence, non-maleficence, respecting patient's autonomy, justice and equity. The high treatment success rate among the referred patients means that there were some gaps in the Iraqi health system in the fields of pediatric CVS diseases, bone marrow and liver transplant and ophthalmology should be fixed. These gaps include shortage in qualified resources in Iraq. The program faced 2 obstacles, the loss of continuity due to intermittent funding and absence of special system for follow up of referred cases after return to Iraq.

RECOMMENDATIONS

Although international medical referral is a widely used approach, even by developed countries, there is an urgent need for funding to train the medical staff and upgrade the facilities in Iraq to be able to restrict referral.

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