

Proposed Model for Iranian National System of Registration of Allergy and Asthma

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ABSTRACT

Introduction: Asthma and allergies in addition to demanding social costs—the economic community, one of the major causes of morbidity and mortality in the world is considered. In the last decade in Iran despite the positive developments in many areas of health records into categories based asthma and allergy international standards, less attention has been paid. Improving the quality of care system, identifying groups at risk of asthma and allergies, control plan, prevention and assessment of asthma and allergies due to possible that when allergy and asthma information registration system and create the

complete and timely data to be collected. Considering now an efficient national system of registration allergy and asthma that can meet the health needs can no need for this study was felt. **Materials and Methods:** This study, study—the comparison was done in the years 2010-2011. In this research, using library resources, information networks and consultations with experts inside the country gathered on the main axis and branches of national registration system, asthma and allergies in American countries—Australia and England were examined and given economic conditions, cultural and geographical themes for our records system, the axes were proposed objectives, structure, data elements, standard

registration process? Data and classification systems are given. **Results:** The proposed model for national registration system, asthma and allergies in the country is shown in a table. In this table the proposed system based on six main “targets”, “structure”, “data elements”, “data collection process,” “registration criteria” and “classification system” is designed. **Conclusion:** The results and recommendations to the International Institute for asthma and allergies, reduction in low registers, and can increase the quality of the proposed model, including advantages in comparison with the existing system of the country noted.

Key words: Asthma, National Information System, Iran.

1. INTRODUCTION

Asthma is the most common chronic diseases in the world, So that now more than 300 million people are infected. During the past 20 years, asthma prevalence in industrialized and developed countries has increased, but it seems to be the least stable at this time. Approximately 10-12% of adults and 15 percent of children suffered from this disease in these countries. Asthma prevalence was much lower in developing countries; but, it seems that increasing urbanization is increasing the prevalence rate. At the same time, the prevalence of atopic and other allergic diseases has increased. Which the reasons for the increasing prevalence of asthma to various factors such as the role of environmental factors including pollution and allergens

and tobacco smoke are more pronounced. Epidemiological observations also showed that the percentage of the population has a genetic predisposition for asthma (1).

In Iran, epidemiologic studies identified high risk groups and developed strategies to reduce human and economic costs of illness, , Formulation and evaluation of health care programs to prevent and control disease in the presence of a national system of registration will be possible to reduce asthma and allergy (2, 3, 4, 5). At present, National Asthma and Allergy information system is a priority in health sector in most developed countries. So that, the United States, Australia and England at the state and local, and regional and national level have improved the situation. The creation of a national

system of registration of asthma and allergy by the World Health Organization, the World Allergy Organization (WAO), the Asthma and Allergy America (AAFA) and Allergy and Asthma European Network (GALEN) has been emphasized. The main objectives are the statement of national studies, planning, implementation, audit quality health care, feedback of health information for health; we can point research and application of monitoring and control systems using information technology for assuring of quality health care for asthma and allergy (6, 7, 8).

2. MATERIAL AND METHODS

This study was a cross sectional study—a comparison that in the years 2010-2011, Using library resources, networks, information and consulta-

tion within the course of formation and evolution, structure, involving organizations, were advantages and limitations of advanced systems or registry information about asthma and allergies in the world we searched key words: Asthma, Allergy, Information registration, and national registration system in Scientific and medical databases in Persian And English Languages.

Due to economic, cultural and geographical conditions of Iran, main and sub domain axes of Iran's national system of registration for asthma and allergy was suggested.

3. RESULTS

Model for a national system of registration of asthma and allergy has been shown in a table. In this table the proposed system based on six main axes: "Registration Criteria", "System structure", "Registration Criteria", "Data collection process", and "classification systems" has been designed. As you can see some of the main axes are composed of a number of minor axes. For example, please consider the data collection process. It has 6 sub-domain (collection method, Collection process, Time of Sending Data, Transmission method, Reporting Methods, and methods of keeping confidential (Table 1).

4. DISCUSSION

In Iran, data collection process in the current system of registration of asthma and allergy is faced with problems such as Structure, data elements and data source (9). Data collection processes in the proposed model somehow have been design to minimize these problems. In the proposed model structure, network of data centers in asthma and allergy has been predicted in the city, county, region and Ministry of Health that facilitates access to comprehensive and accurate information. Each of these centers should contribute in collection process, analysis and feedback information. In this structure, reporting guidelines and providing information are suggested in paper and electronic form in both general and specific levels. In this field, respecting privacy statement and Information exposing rules was considered under

the "Information Management Committee".

In more advanced systems of the world, trend data flow and records of information feedback of asthma and allergy are different, but finally, all data from data sources starts and ends with National Asthma and Allergy Information System in the country (10).

According to proposed model, the process of data collection start from the Sources of data and leads to Asthma and Allergy Informa-

tion Centers in city, county, region, and Ministry of Health. The goals of Asthma and Allergy Information Records are; epidemiology of asthma and allergy and the complications, effective and efficient health care delivery for patients with asthma and allergy, giving accurate information to patients and professionals, information feedback, monitoring and controlling the quality of care by using information technology systems and Application of effective methods to prevent severe compli-

The main axes	Sub domain Axes	Recommendations
System purposes	Main Purposes	Epidemiological studies of asthma and allergy symptoms, Effective health care delivery and accurate information to patients and professionals, Feedback of Health Information for health care, Monitoring and controlling the quality of care by using information technology systems, Using effective methods to prevent costly complications of asthma and allergies
	Responding organization	Ministry of Health
System structure	Supervisory Committee	Asthma and Allergy Advisory Committee records at the national level as the observer and the formulation of policies and procedures committee National Asthma and Allergy
	Registration system	Population oriented
	Organization method	Organization system of registration centers in the format of decentralization
	Location registration area	Ministry of Health, Management of non-communicable diseases
	Registration organization systems	Sources of data production, data center city allergy and asthma, Asthma and Allergies in data centers in Province, Regional Allergy Asthma and regional data centers, Advisory committee of Asthma and Allergy Registration, National Center registry, Ministry of Health
	Data Type	Demographic data, allergy and asthma control, asthma and pregnancy and birth outcomes, asthma and allergy care
Registration Criteria	Data Source	Asthma and allergy clinics, hospitals, health centers, medical offices
	Acceptance Criteria	Codes of Asthma and Allergy (ICD-10)
	Description of Elements	Provide data dictionary and accurate description of registering of information elements
Data collection process	collection method	The use of both active and inactive Method due status and facilities
	Collection process	Data sources, city data center of asthma & allergy and province asthma & allergy and information center Asthma and Allergy Center, registration area, the National Registration Center for Asthma and Allergy, Ministry of Health
	Time of Sending Data	Sending data in every 6 months to national system of registration of asthma and allergies
	Transmission method	Creating abstracting form and sending data in formulate form
	Reporting Methods	Creating reporting guidelines and reporting in paper and electronic(network) f general and special levels o
	Methods of keeping Confidential	Creating guidelines for Disclosure of information and establishing Information management committee regarding to the policies of information disclosure
Classification systems	Classification system of Asthma and Allergy	Use of ICD-10
	Procedures and other information elements	Use of national classification system

Table 1. The National System Model of Asthma and Allergy Information for Iran

cations of asthma and allergy. The main objectives of the National Information Register System of asthma and allergy in the world include epidemiological studies, developing of comprehensive plans to control and prevent asthma and allergy, Improve the quality Care and reduction social and economic costs of asthma and allergy (11).

Collecting a set of demographic and diagnostic data and respiratory function tests, Asthma and allergy control tools, self-evaluation functions, Immunization of status and Complications and medical interventions are the data elements that collected data has been proposed on asthma and allergy information in the registry system in Iran. Also National identification code assigned for asthma and allergy cases in order to prevent duplicate records were diagnosed essential (12-19).

In the proposed system, asthma and allergy clinics, hospitals, health centers and offices are defined as data sources. In this system, an acceptance criterion was suggested consistent with asthma and allergy codes "ICD-10". However Culture data were necessary in order to describe the information elements. An acceptance criterion in the developing asthma and allergy information system, in the world is according to Asthma and allergy codes "ICD". In the proposed system of data collection, have been considered both active and semi-active approach based on state and regional and hospital facilities. Data sending to the national asthma and allergy records system has been suggested using the abstract in 6 months period.

In order to classify asthma and allergy and its complications suggestion is using the international classification system ICD -10 and also for classification actions and other data elements, are suggested National classification systems. America, Australia and England for procedure classification use the national classification systems. Asthma and allergy advisory committee records at the national level, was considered necessary to offer counseling services, supervision, implementation and policies. Moreover in this committee

Presence of epidemiologist, Physicians, Health information management professionals, and Nutritionists, Statistics and Information Technology professionals. In addition, has been suggested that Regional Center for Asthma and Allergy information recording be established in University of vice Chancellery of Health. Meanwhile Ministry of Health was suggested as the national system of recording of asthma and allergy. The main objectives of the national system of recording of asthma and allergies in England are creating, evaluating Identify community programs. Asthma and allergy control, correct informing, Health information feedback, quality control of care, Using information technology systems and Applying effective methods to prevent costly complications of asthma and allergy (20, 21). In addition in US there are identifying patients who need more support and Satisfying needs of insurance agents through the data. Moreover in Australia has been mentioned Source of education and research and care institutions and hospitals evaluating complaints? (24, 25).

Compared to the national system of recording information of asthma and allergy in the countries under consideration, National Asthma and Allergy recording information system in England is full supervised by the British National Health (NHS) and Commission for Health Improvement (NHS) is responsible for effectiveness of programs. In the US this issue was under the Department of Human Services and Health of American (US.DHHS). Moreover activities of this system define, editing, directing, coordinating, monitoring in National Center for Health Statistics (NCHS) that is a part of Center for Disease Prevention and Combating the United States Department of Health and Human Services (26-29). In Australia health care and aging has full control over the system and the federal government Cooperation with the National Association of Medical Research and State and Territory health departments is responsible for policies and procedures (30).

In comparison of the national information system registration about

the countries under studies, Information items that is predicted in the national system of data collection in England is less than of the elements that is collected Recorded centers for the development of allergy and asthma in US. Internationally, there is a set of data in the all recording information in the National Asthma and Allergy and all activities should be In order to establish a minimum set of required data (31).

In comparison, the National Recorded criterion for asthma and allergy recording information in the countries under consideration, acceptance criteria of the England National Asthma and Allergy recording information defined as ICD - 10, in the US is ICD-10-CM and in Australia defined as ICD-10- AM. (32-33).

In comparison, the National Recorded criterion for asthma and allergy recording information in the countries under consideration, England, USA and Australia use the specific methods According to the conditions and opportunities of its region. The National Asthma and Allergy recording information of England use passive approach, in USA and Australia both active and passive methods are used for data collection. Data collected in national recording information of allergy and asthma system in England and America, and Australia, including defined and documented process that is started from the bottom level of the data source and leads to a specific level, the National Center for Asthma and Allergy recording information (34).

In comparison, the National Recorded criterion for asthma and allergy recording information in the countries under consideration, England uses the different types, international and national classification system. For coding of asthma and allergy and its complications use the ICD - 10. For coding procedures and other data collection, use the national classification system established by national health organizations (35, 36, 37).

Studying the national system of recording information about asthma and allergies in the target countries, indicate that recording information system, which has a specific structure,

that start primary from the regional level and then leads to national level. Now in our country, there is not documented structure in especially data analysis, and data feedback in patients with asthma and allergies. Recently, Asthma and allergy recording information system in Iran, Hospitals and other resources required to collect their information and provide accurate information to know. The types of information collected at these centers are different due to not having the same form.

Researchers believe that is not possible in Iran; developing the prevention programs, increased levels of disease detection, identifying groups at risk, developing the strategies to reduce human and economic costs of diseases, developing and evaluating of health care prevention programs, disease control system without a coherent, comprehensive and authoritative structure and Institutionalizing the system (25). However, subject to designing and deploying of asthma and Allergy recording information systems and other disease and improving the management process and information feedback to improve the quality of patient care and community health are essential.

5. CONCLUSION

According to the results and recommendations of the International Institute for Asthma and Allergy, Low rate of registration and promoting of quality, the advantages of the proposed model is compared with existing systems.

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