Referral System in the Asir Region, Saudi Arabia: A Study on Hospitals’ Referral Coordination Offices

A. A. R. Mahfouz, M. A. F. Abolfotouh, A. A. Al-Khazayem, R. A. G. Al-Erian


The Ministry of Health in the Kingdom of Saudi Arabia has adopted the primary health care concept to provide a comprehensive health service to the community.¹ Successful primary health care services require complete coordination between the primary, secondary, and tertiary levels of care through a structured referral system, aimed at offering the best possible and most cost-effective services.

Referral is the process whereby one physician requests another physician to examine a patient to obtain advice or management.² Important steps in this process include: communication of the need and purpose of the referral to the consultants, communication of the consultants’ findings and mutual decision on continuing care.³,⁴ Hospitals’ referral coordination offices are relay stations for afferent and efferent communications with primary health care centres.

Coordination offices for referring patients to hospital are relay stations for afferent and efferent communications with primary health care centres. Fourteen referral coordination offices in the Asir region were studied. The physical structure of the offices was such as to enable the staff to work in optimal conditions. The study revealed a lack of telephones in half of the offices. The numbers of persons employed (2.7 ± 1.3) was satisfactory. On the other hand a lack of qualified trained workers and a high turnover of staff deprived the offices of the experience needed to maintain a good performance. A review of the registers showed that sufficient information was recorded in the form of personal data but there was a deficiency of data related to the referring centres. The knowledge and attitude of staff (38 persons) towards the referral system were assessed. The objective of feedback seemed to be clear and the majority showed a positive attitude towards the referral system and workload. The study revealed a lack of formal regulations and job descriptions. Immediate plans to upgrade the quality of the staff are mandatory if the quality of referral system and hence comprehensive patient care is to be guaranteed.

Department of Family and Community Medicine, College of Medicine, King Saud University, Abha Branch, PO Box 641, Abha, Saudi Arabia

AHMED ABDEL RAHMAN MAHFOUZ MB CHB MPH MSc
DPH, Assistant Professor

MOSTAFA ABDEL FATAH ABOLFOTOUH MB CHB MPH
DPH, Assistant Professor

Asir General Directorate of Health Affairs, Abha, Saudi Arabia

ABDUL AZIZ AL-KHOZAYEM MBBS, General Director
Department of Primary Health Care

REDA ABDEL GHANI AL-ERIAN MB CHB, Head of Technical Office

Submitted: 19.04.92.
Received in final revised form: 20.07.92.
Accepted: 21.07.92.
The work described in this article aimed to study the role of these offices in the Asir region and examine some related problems.

Materials and Methods

The Asir region lies in southwestern Saudi Arabia, and extends from the high mountains of Asir to the Red Sea. Comprehensive primary health care is applied through a widely distributed network of primary health care centres (PHCCs). In the Asir region, 238 PHCCs provide such services. Secondary and tertiary health care is provided through 14 hospitals scattered all over the area. The present study included the referral coordination offices (RCOs) in these hospitals. Data about the offices were collected through an observation sheet prepared by one of the researchers to avoid inter-observer variation. The data recorded included the date of establishing RCOs, their premises and manpower and the nature of the information recorded. A score was established where presence of an item of information scored 1 and absence scored zero.

The knowledge and attitude of the personnel working in RCOs towards the referral system were assessed by means of a self-administered questionnaire. The questionnaire included data about feedback to primary health care centres, workload, behaviour towards non-urgent non-referred cases, feedback of further hospital procedures and referral to other hospitals and the presence of formal regulations.

Data analysis was done on an IBM microcomputer using the SPSS PC+ software package.5

Results

The present study included the referral coordination offices (RCOs) in the 14 hospitals in the Asir region. By the time of the study all hospitals had started a strict full referral system, and established RCOs. Before 1989 only half of the hospitals (seven) had RCOs.

Table 1 shows the premises and manpower of RCOs. The majority had devoted a separate room in the vicinity of the clinics (13, 92.9%). Enough cupboards to keep records were present in 85.7% (12) and enough tables and desks were present in 71.4% (10) of RCOs. Only half of them had a telephone to facilitate internal and external communications. The average number of persons working in RCOs was 2.7 ± 1.3 (median 2) persons per office. Five hospitals (35.7%) had no Saudi workers and only one hospital (7.1%) had three Saudi workers. As for the qualifications of the workers, the average number of university graduates per office was 0.9 ± 1.1. Concerning previous experience of workers, the average of previously experienced persons per office was 2.1 ± 1.5 (median 2). Studying the stability of workers and turnover rate, one hospital (7.1%) had four workers who had been working 6 months or more in the RCOs. On the other hand one hospital (7.1%) had no workers who had spent 6 months or more in the RCO. The average number of persons per office who had been working more than 6 months was 1.7 ± 0.9 (median 2). As for competency in English, the average number of competent persons per office was 1.9 ± 1.2.

The registers used in RCOs were inspected. One hospital (7.1%) had no register at all. A fixed serial number system was present in five (38.5%) of RCOs registries. Dates were recorded in more than one-fifth of RCOs registries (referral date 30%, attending date 23.1%). Data related to the referring PHCCs were scarce. Only one RCO registry (7.7%) included data about name of PHCC, referring serial number and family health registry (FHR) number. The name of the referring physician was not mentioned in any of these registries. Personal data of patients such as name (100%), nationality (84.6%) and age (76.9%) were generally included. On the other hand, other personal data such as address (30.4%) and occupation (7.7%) were registered poorly. The score allotted to registers ranged from 5 to 10 with an average of 7 ± 1.1 (median 7).

The knowledge and attitude of the 38 workers in RCOs in Asir region towards the referral system were assessed. More than three-quarters (81.6%, 31) knew that the objective of sending feedback to PHCCs was to follow up the patients. Half of RCOs workers mentioned the mutual exchange of experience between physicians (52.6%, 20) and keeping information in the FHR as the objective of feedback. As for time spent to feedback, 78.9% (30) stated that feedback must be sent immediately. Concerning workload, 76.3% (29) mentioned that the referral system is not a duplication of service and 57.9% (22) stated that it cannot be replaced by providing PHCCs with specialists. Thirty-two workers (84.2%) mentioned that they did not notice a change in workload after application of the referral system while 53.2% (24) did not notice an increase in problems with patients attending the hospital. Only half of the workers (52.6%, 20) would convince non-urgent cases without a referral note attending the hospitals to go to their PHCC to bring such a note and would send feedback to PHCC about non-urgent cases attending the hospital without referral (57.9%, 22). Almost one-third of them would send a feedback to the PHCCs if referred cases needed further hospital procedures (34.2%, 13).
or further referral to another hospital (36.8%, 14). A low proportion reported the presence of formal regulations (42.1%, 16), job descriptions (36.8%, 14), records of meetings with the hospital administration (21.1%, 6) and meetings with the PHC sector (36.8%, 14).

Discussion

The referral system was introduced as an advanced step after implementation of primary health care and family health records in the health centres. The referral system screens the common and easily treatable cases at the level of PHCCs, while the complicated cases come to hospitals. This would reduce unnecessary burdens on the hospitals and related costs. The cost of consultation has been found to be greater in hospital out-patient departments than in PHCCs, sometimes fourfold.6,7 In Saudi Arabia, a study on the effect of implementation of the referral system in health care showed a 65% decrease of number of patients attending the hospital out-patient departments.8

Referral co-ordination offices (RCOs) play a major role in the referral process. Patients attending the hospital, referred from their PHCCs, must contact RCOs to arrange for processing the referral and to have an appointment with the consultants. Feedback of the consultants' opinions and management to the PHCCs referring physicians would also pass through RCOs. The present study included the RCOs in the Asir region. The premises of the RCOs were fairly satisfactory. On the other hand the study revealed a lack of telephones in half of the RCOs (50.0%, 7). This lack of communication may hinder the logistics of referral process and may cause a massive delay in the procedures, and warrants immediate corrective action.

The manpower structure of RCOs was satisfactory in quantity, but the quality showed some defects. A lack of experienced workers, university graduated and competent in English to deal properly with referrals, and a high turnover rate deplete RCOs of the experienced people needed to maintain a good performance. Not only that, but also the lack of well qualified Saudi staff was a prominent problem. Immediate plans to upgrade the quality of RCOs staff are mandatory.

Inspection of the registers in RCOs showed enormous deficiencies in data related to referring PHCC. Lack of items related to the referring PHCC will affect the mechanics of feedback and hinder any inquiries later, thus affecting deleteriously the maintenance of an accurate family health registry. A recent study in Saudi Arabia showed that 47% of feedback reports were poor.9 The design of a comprehensive standardized register distributed to all RCOs might solve that problem.

The knowledge and attitude of RCOs' staff towards the referral system were assessed. The objective to send feedback to PHCC seemed to be clear to the majority (81.6%). Nevertheless, it was unclear to a few who regarded feedback as just a step in the formal procedures (28.9%) or to prove that patients had attended the hospital (34.2%). The majority showed a positive attitude towards the referral system and the workload after its implementation. The study revealed a lack of formal regulations, job descriptions, registration of meetings with the hospital administration and the PHC sector. Reorientation of the RCOs staff to the system is considered mandatory through in-service training and orientation programmes. The referral process is a continuous chain. Upgrading RCOs is important if the quality of the referral system and hence comprehensive patient care is to be guaranteed.

Recently, the Asir region started a new administrative system to link PHCCs with the appropriate referral hospitals. Preliminary reports showed an improvement in communication between both parties, but further studies will be needed to evaluate the efficacy of this new arrangement.

References

7. Study of the cost of Health Services provided by the Ministry of Health. Research Center, College of Administration Sciences, King Saud University, Saudi Arabia, 1988.