

OUTCOME OF REFERRALS FROM A PRIMARY HEALTH INSTITUTION IN RURAL KARNATAKA

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Summary:

Primary Healthcare Centers (PHCs) play a vital role in public health system in rural areas in India. Some, of the patients visiting these PHCs are then referred to tertiary care facilities. Reasons for referral include unsure diagnosis or inadequate facilities for treatment. In this study almost 86% of patients showed improvement after treatment at referral centers while twelve referred patients did not seek treatment after getting symptomatic relief. Two referred patients, one with uncontrolled diabetes and the other with AMI died. IHD in rural areas need special attention. We feel that establishing a link between Primary Health Care Centers and tertiary care centers besides building capacity of PHC centers to manage chronic diseases needs special attention.

KEY WORDS: Primary care referrals, Outcome.

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INTRODUCTION

Primary Health Centers form the back bone of the public health system in rural India. In spite of the criticism they have faced regarding quality of care and poor infrastructure, they continue to be the major primary care provider for the majority of India's population who

reside in rural areas. Primary care services are incomplete if they lack appropriate and efficient referral systems to secondary and tertiary care hospitals. Although western researchers have extensively studied the nature and types of referrals from General Practitioners,¹ primary care referrals in India have not received as much attention. In one study done almost a decade and a half ago, Pratinidhi and others² described 247 referrals from PHCs. They concluded that the referral system was availed of by most of the patients and that longer distances to the referral institution reduced favorable outcomes.

This study was carried out to examine the current nature of referrals from a primary health institution and also to ascertain what the outcomes were in real terms to the patient.

METHODOLOGY

The study was conducted at the Community Health Training Centre at Mugalur village³ utilizing both a retrospective and prospective design. Fifty consecutive referrals were studied retrospectively and 50 prospectively from January 25th 2007.

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Indications for referral were obtained from the patient referral records maintained at the centre while outcomes were obtained by visiting patients in their homes and interviewing them or their next of kin (in case the former was deceased or unavailable during the time of visit). Items included in the interview schedule sought to elicit the referral centre that the patient had visited, the outcome of referral in terms of improvement, deterioration or death as well as reasons for not heeding referral.

Those referrals where neither the referred patient nor the immediate family member was available for interview were excluded from the study. The timing of the study was chosen to coincide with the posting of medical interns to the centre.

RESULTS

Indications for referral were either an unsure diagnosis or inadequate facilities for treatment or both. All referrals were made to the closest secondary or tertiary care hospital. The closest hospitals were tertiary teaching hospitals situated over 30 kms away from the referring centre. A total of 48 female and 52 male referrals were studied comprising 51 acute cases and

49 chronic cases. The provisional diagnoses of referred patients are given in Table-I.

Eighty eight patients followed advice for referral, while 12 did not. Of those who heeded referral, 77 called on a private teaching hospital, 10 visited the government teaching hospital, and 1 patient died enroute. Patients who ignored the referral had chronic illnesses including Migraine, Hypertension, Chronic Bronchitis, Osteoarthritis, Gastritis, Vaginal Candidiasis, old scorpion stings and diabetes. Reasons for ignoring referrals included symptomatic relief following medications provided at the referring centre, financial constraints, non availability of transport and the lack of an attendant. Of all patients referred, 86% improved following treatment in a tertiary care facility.

Two patients with referrals died. The first patient had a known history of uncontrolled diabetes who suffered a possible Myocardial Infarction and succumbed to it en route to the higher centre. The second was a patient with Myocardial Infarction, who died at the local primary health centre, where he was taken against the advice of the referring doctor.

Table-I: Outcomes of referrals from a Primary Health Institution in rural Karnataka

<i>Indication</i>	<i>Improved</i>	<i>Died</i>	<i>Did not heed referral</i>	<i>Total</i>
Neurological (epilepsy, meningitis)	7	0	1	9
Cardiovascular (Myocardial Infarction, Congestive Cardiac Failure,)	8	2	1	11
Pulmonary (Bronchial Asthma, Chronic Bronchitis, COPD, Pneumonia)	2	0	1	3
Abdomino-pelvic (Acute abdomen)	19	0	1	20
Musculoskeletal (including domestic, farming, road traffic accidents, chronic ulcers due to diabetes and Hansen's disease as well as assault)	14	0	3	17
Obstetric (Complicated labour)	10	0	2	12
Miscellaneous (animal bites and stings, Foreign bodies in ears and nostrils)	26	0	3	29
Total	86	2	12	100

DISCUSSION

In our study, referrals depended primarily on issues related to the diagnosis and availability of adequate treatment resources. In a review article, O'Donnell reported Coulter's suggestion that appropriate referrals had to be necessary for the patient, timely in the course of the disease, effective in achieving its objectives and cost effective.¹ The same study also reported that referrals were more common when the specialist hospitals were located closer to the GP practice. In our study, the closest referral hospital was more than thirty kilometers away, which is also the case with most rural primary health centres in India. It could be thus assumed that the referrals that were made would more likely have been out of necessity than otherwise.

The findings of this study revealed that almost equal numbers of referrals were made for chronic conditions (49%) as for acute ones (51%). Although there have been many studies highlighting issues surrounding acute referrals, we could not find any literature discussing referrals of chronic cases. Surgical conditions including acute abdomen, obstetric complications, trauma, bites, stings and impacted foreign bodies formed the bulk of referrals in this study. Chronic ulcers are another challenging condition to manage at rural centres since treatment includes prolonged periods of inpatient stay under controlled conditions with regular dressings or other minor surgical procedures. Patients with long standing ulcers are forced to continue their daily activities in and around their homes and be satisfied with an occasional dressing, which the treating medical officer or nurse knows will not alone help to speed up healing. Many patients with chronic diseases like hypertension, Chronic Bronchitis and Diabetes were first diagnosed in rural centres such as the one where the study was carried out, and have since been receiving treatment from there.

Eighty eight percent of patients in this study availed themselves of the referral. These results were similar to the reports of Prathinidhi et al.²

who reported that 87.5% heeded referral. While 86% of patients reported having improved following treatment at the tertiary care facility, it was interesting to note that every patient who did not heed referral suffered from a chronic illness. Poor financial resources and a lack of adequate family support have prevented them from accessing higher levels of care, and as a consequence, these patients make do with short term symptomatic treatment. In addition, the feeling of complacency towards conditions that they have suffered from over a long period of time and have subsequently recovered from, adds to the lack of motivation to seek higher care. This phenomenon, though, is not specific to developing countries. A recent study from Washington⁴ reported that rural residents rely mostly on locally available health services for much of their care which is largely due to the prohibitive distances of travel.

Coronary Heart Disease which contributed to the only two deaths in this study is on the rise in India⁵ and is no longer a disease confined to urban areas. If deaths from Myocardial Infarction in rural areas are to be prevented, there needs to be an upgrading of diagnostic skills of the primary care doctors involved in rural practice along with installation of life saving facilities at rural health centres to enable management of such patients. Referral following First Aid will not be able to prevent deaths in such cases due to long travel times to tertiary care centres. This will be a challenge for rural health services in the future. The use of Telemedicine technology⁵ is a possible way to address management of serious cardiac and other non-communicable diseases at rural primary care institutions.

In conclusion, building the capacity of primary care medical officers in the management of chronic diseases and conditions coupled with improved infrastructure may contribute to better health outcomes of patients residing in rural areas.

Special attention needs to be given to the problem of Ischaemic Heart Disease in rural areas. Strong collaborative links between

tertiary care hospitals and the surrounding primary health institutions can pave the way for better management of acute coronary patients in rural primary care centres.

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