Monitoring Emergency Referral Services in a Rural Health & Training Centre, Goa.

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Abstract- Background : A referral system will function effectively if all service providers adhere to the referral discipline , to refer appropriately

Objective : To monitor emergency referral pattern in a rural health & training centre , Goa between nov 2008 to nov 2011.

Study design: A record based descriptive study.

Results: Majority of cases (38.06%) were referred between 8 pm to 8 am & cardiovascular emergencies (28.3%) was the most common cause of referral. Most cases (46.16%) are referred to higher centre for further management (inpatient care) followed by expert opinion (27.64%) and specific investigation (26.19%).96.2% cases were found to be appropriate for referral & there was no back referral information in majority (90.7%) of cases.

Interpretation: Standardised referral register should be maintained both in initiating facility and receiving facility. Higher centre should provide proper Back referral information .

Index Terms- Referral, Monitoring, emergency service, back referral.

I. INTRODUCTION

A referral can be defined as a process in which a health worker at one level of the health system, having insufficient resources (drugs, equipment, skills) to manage a clinical condition, seeks the assistance of a better or differently resourced facility at the same or higher level to assist in, or take over the management of, the patient's case.[(i)] A referral system will function effectively if all the service providers will function effectively , to refer appropriately.

An effective referral system ensures a close relationship between all levels of the health system and helps to ensure people receive the best possible care closest to home. It also assists in making cost-effective use of hospitals and primary health care services.[(i)] Monitoring and evaluation activities provides essential information for assessing the extent to which the referral network is achieving its intended objectives and patients needs are met. Evaluating the referral network provides feedback for quality assurance and for informing the planning, design and implementation of future services.[(2)]

II. METHODS AND MATERIALS

This record based descriptive study was carried out at RHTC , Mandur.

The RHTC , Mandur is affiliated to the Dept. of PSM , Goa Medical College and is manned by PG students in PSM and the interns under the charge of Medical officer.

An emergency referral register is maintained in the hospital in which details about the patient, clinical findings, provisional diagnosis & back referral information are registered. Cases referred from 2011 to 2014 were identified from the emergency referral register and analysed. Only cases which were referred on emergency basis were considered in this study. Data were collected on patient demography , cause for referral and back referral. The appropriateness of referral was determined by an assessment of the severity of illness and intensiveness of care required.[(3)]

Indicators used for monitoring and evaluating referral network :[(i)(4)(5)]

1. Total number of referrals made.
2. Quality of documentation.
3. Reason for reference.
4. Appropriateness of referral.
5. Back referral information.

Table 1: Age ; Sex distribution of referrals Figure in parentheses represents percentage

Age interval (years)	No. of reference	Males	Females
1. 0-19	89(12.87)	54(60.6)	35(39.4)
2. 20-39	169(24.4)	96(56.8)	73(43.2)
3. 40-59	135(19.46)	87(64.4)	48(35.6)

4. 60-79	**110(15.91)**	**69(62.7)**	**41(37.3)**
5. 80 +	**36(5.8)**	**22(61.1)**	**14(38.9)**
Age not mentioned	**152(21.9)**	**95(62.5)**	**57(37.5)**
Total	**691(100)**	**423(61.09)**	**268(38.91)**

III. RESULTS

The total number of emergency reference sent during the study period was 691.

The age of the patient ranged from day1 of birth to 86 years. Maximum no. of references are in the age group 20-40 years(24.4%). Males constituted 61.09%.(Table 1)

Table 2 Time of references

S.no	TIME	No.of references
1.	8AM TO 2 PM	151 (21.85%)
2.	2PM TO 8PM	223 (32.2%)
3.	8PM TO 8AM	263 (38.06%)
4.	TIME NOTMENTIONED	54 (7.8%)
	Total	**691 (100%)**

Table 3 Reason for reference

REASON FOR REFERENCE	n = 691
1. Further management	319(46.16%)
2. Expert opinion	191(27.64%)
3. specific investigation	181(26.19%)
Total	691

Majority of cases(38.06%) were referred between 8pm to 8am (Table 2) & cardiovascular emergencies(28.3%) was the most common cause of referral (Table 4)

Most case (46.16%) are referred to higher centre for further management (inpatient care) followed by expert opinion(27.64%) and specific investigation(26.19%). 96.2% cases were found to be appropriate for referral & there was no back referral information in majority (90.7%) of cases.

Table 3 cause of reference (underlying condition)

CAUSE OF REFERENCE	n=691
1 .cardiovascular emergencies	195(28.2%)
2 .injuries	138(20%)
3 .GI emergencies	70(10.1%)
4 .infections	60(8.6%)

5 .obstetric emergencies	54(7.8%)
6 .snakebite/poisoning	45(6.5%)
7 .Neurological emergencies	40(5.8%)
8 .Respiratory emergencies	39(5.6%)
9 .psychiatric emergencies	10(1.4%)
10.others	40(5.8%)
TOTAL	691

IV. DISCUSSION

This study was conducted to evaluate emergency service at a primary care level.

Study revealed that documentation of emergency reference was incomplete.

Records of higher level facility revealed lack of information on either patient referral or feedback. Feedback from referral centre to the initiating facility was missing. Omaha ; et al in their study of patient referral system noted the same problem as several doctors complained of not receiving any reply or not even hearing any results concerning the patient they had referred in some complicated cases to higher level institution.[6]

The referral process is a critical component of quality of clinical care, and it has become increasingly scrutinized in the managed care era. The development of effective patient referral system is one of the important public health issue in developing countries . Referral is a two-way process that involves co-ordination and information transfer between the health centres and the hospitals. Effective referral requires clear communication to assure that the patient receive optimal care. Breakdown in communication can lead to poor continuity of care, delayed diagnosis, poly-pharmacy, increased litigation risk and unnecessary testing, and can therefore decrease the quality of care.[7] .

Tejal et al (2000) in their study state that a critical component of effective referral system is the referral letter and specialists were dissatisfied with the content of the letters and with the information they received.

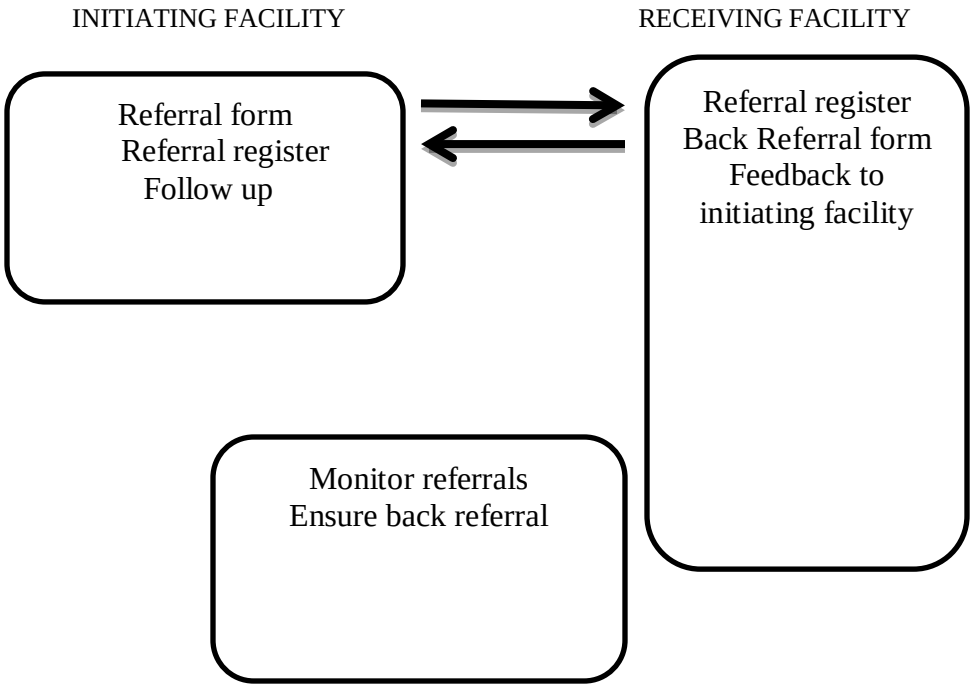

ILLUSTRATION 1

V. CONCLUSIONS

Standardised referral register should be maintained both in the initiating facility and receiving facility. referral centre should provide proper back referral information to the initiating facility. monitoring and evaluation is essential to ensure the proper functioning of the referral systems. regular review of the referral register to identify the missing information , incomplete service delivery and documentation problems.

CONFLICT OF INTEREST : None.

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