



PHYSICIAN TEAM IN PARTAKING DOMICILIARY ATTENDANCE FOR THEIR PATIENTS FROM A CANCER CENTRE - ANALYTICAL STUDY REVIEW.

Oncology

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ABSTRACT

Background: There is a global need for Domestic Visit (DV) by physician lead team for Domestic treatment. DV has an excellent health care outcome. This aims at DV assistance for oncologically diagnosed patients, with objectives of service provision to patients requiring home visit by the medical team and by utilizing the DV and telemedicine linked to the internal data in the tertiary cancer center. **Purpose:** To bring the highest possible escalation in management by DV that contributes the health care level a step higher than existed. **Materials And Methods:** All DV are attended with ambulance equipped with crash cart and a quick preparation of the details of previous visit. Seventy three visits attended during March 2019 to August 2020. **Study Results:** The number of DV had an increase in patients diagnosed with malignancy of Breast 27.4%, brain Astrocytoma 13.7%, Rectum 13.7%, Colon 9.5%, Lymphoma 5.5%, Hepato cellular carcinoma 5.5% together comprising of more than 75% of the total DV. Hodgkin's lymphoma, Non Hodgkin's lymphoma, Mantle cell lymphoma, malignancy of Hypopharynx, malignancy of Prostate, Squamous cell carcinoma, Periapillary carcinoma comprised 1.4%. The lung neoplasms were 4.1%. Malignant melanoma, Renal cell carcinoma, brain Oligodendroglioma and other Post Onco Surgery 2.7%. **Conclusion:** Age, Gender, Types ,Stages Presentation and DV treatment has significance and there was no mortality in our domestic visit.

KEYWORDS

Domestic Visit (DV), Physician, Ambulatory Team, Telemedicine, Home Visit (HV)

INTRODUCTION -

Our committed study focuses on the broad spectrum of oncological patients, including those at different disease stages who have complaints, symptoms, and signs related to the disease or independent of it. Upon receiving the call, patient details were retrieved from our database before attending the domestic visit. We followed a prior protocol-based international standardized protocol and later provided advice to the patient and attendant by preparing a layout plan for approaching the patient. Home visits are an integral part of Germany and put a considerable load on medical practices. Urgent home calls are increasingly delegated to emergency services, and general practitioners are considering good cooperation with staff as the key factor to ensure successful home visits. Home visits for the vulnerable and elderly population remain undisputed (1). The future history of home care and physician HV in the United States of America shows significant changes in 20 years. A big health business and a number of innovative modes of HV have been developed and evaluated. The recent revival of HV services, even though there was a reduction half a century ago, focuses on integrating medical and social services for chronically disabled persons (2). Australian after-hours call (AHC) services have grown rapidly. Satisfaction in AHC is comparable to signs of scale, especially in financial and service satisfaction. In particular, quickness and reaching time are very significant factors in AHC, with a positive assignment of five out of seven on a scale of 4 hours. It increases one and a half times and accessibility and convenience are four times higher.

Patients unseen in two hours score higher satisfaction in financial aspects and time spent by the doctor, while those seen within half an hour (3). The Nova Scotia study of doctors has found encouraging results due to strategies to support HV. This is an important area for further research and policy development. HV is successful in addressing barriers such as transport, hygiene, safety, administrative issues, and remuneration for the services (4). Remote management clinical trials showed a mean adverse events rate of 6-10 per 100, compared to 3-9 in the control group, with a difference of 2-8%. This supports non-inferiority, and one in five participants still use the remote care service (5). A research on primary care and HV mentions

that the role of doctors varies from place to place due to limited and standardized universal protocols. When benefits and non-benefits are compared, maximum benefits are observed with a strategic full team. Negative benefits are due to disorganized delays and they are non-essential. Hospital benefits include reducing referrals, decongesting hospitals, and enhancing the role of team-working physicians in HV (6). During the COVID-19 pandemic, stay-at-home orders and shortages of personal protective equipment (PPE) forced primary care physicians to resort to telephonic and teleconference methods to provide higher levels of domestic treatment. This includes timely management, patient comfort, family-centered care at home, which creates a balance in physician work-life and prioritizes based treatment (7). Initially, healthcare at home and the HV combination showed good outcomes for chronic health care management, prescription compliance and throughout care following hospitalization. Super specialty team management reverses the follow-up, offers more flexible practices, effective chronic disorder telehealth virtual second opinion, mental health services, lifestyle support, functional alternative medicine, recovery after natural causes, and elder calls (8). Latest advance in physician home call is bimodal age distribution at 1-36 years. Preliminary home calls are given priority over care clinics or doctor's offices, with on-demand home calls progressing rapidly when used by younger and acute care-needy individuals, even in a smartphone app-based HV (9). Primary care physician facility in face-to-face telemedicine is much more assured, which reduces the healthcare administration burden over staff and also utilizes the entire advanced computer software mechanism.

Study Results :

The number of DV had an increase in patients diagnosed with CA Breast by 27.4%, Astrocytoma by 13.7%, CA Rectum by 13.7%, CA Colon by 9.5%, Lymphoma by 5.5%, and Hepatocellular carcinoma by 5.5%, together comprising more than 75% of the total DV. Hodgkin's lymphoma, Non-Hodgkin's lymphoma, Mantle cell lymphoma, CA Hypopharynx, CA Prostate, Squamous cell carcinoma, and Periapillary carcinoma comprised 1.4%. The CA lung was 4.1%. Malignant melanoma, Renal cell carcinoma, Oligodendroglioma, and Post Onco Surgery accounted for 2.7%. In this study, a total of 45

patients needed 73 domestic visits (DV), which comprised more than 65% of those above 60 years of age. The study included patients ranging from 44 years to 83 years, with an average age of 63 years for females and 68 years for males. The youngest and the oldest patients visited in this study were 44 and 83 years old respectively (Table no.1). The gender classification in this study was 42.5% for males and 57.5% for females, showing moderate female dominance and not statistically significant. Hence, both genders were likely to opt for domestic visits (Table no. 2). The study classified patients' domestic visits based on frequency and percentage. It showed that 52.1% of patients needed a repeat visit by the domestic medical management team, while 47.9% of the patients were treated in their first visit, with domestic visits ranging from 1 to 10 (Table no. 3). Additionally, the study revealed an increase in patients diagnosed with CA Breast (27.4%), followed by brain Astrocytoma (13.7%) and malignant Rectum (13.7%). These three combined comprised more than 50% of all primary diagnoses. Colon malignancy and Lymphomas diagnosed in patients consisted of 9.5% each, with lymphomas further classified as Lymphoma (5.5%), Hodgkin's lymphoma (1.4%), Non-Hodgkin's lymphoma (1.4%), and Mantle cell lymphoma (1.4%). Hepatocellular carcinoma was diagnosed in 5.5% of the patients. The patients diagnosed with lung neoplasm were 4.1%. 2.7% of the patients were diagnosed with malignant melanoma, renal cell carcinoma, brain oligodendroglioma, and postoperative care each. The rest of the patients comprised malignant hypopharynx, malignant prostate, squamous cell carcinoma, and periampullary carcinoma with 1.4% each (Table no.4). The study revealed that 65% of patients had opted for a domestic visit, much like a hospital OP visit. 12.3% of DV for intravenous fluid administration. About 6.9% of the DV was fixed for emergency management and nasogastric tube purposes, 2.7% of which was for bed sore dressing and postoperative care (Table no.5). The medical treatment of various diseases can be managed the same way in DV as in the hospital outpatient. A moderate hurdle for doctors in domestic visits is the availability of limited resources, especially the complete lab facility. In this study, with the help of complaints received over the phone, history, and examination, we were able to manage 69% of patients, while blood tests were required in 5.5%. Electrocardiogram and X-ray were required in 4.1%, specialist consultation in 10.9% of patients, ambulance facilities or hospitalization were required in 9.6% of patients (Table no.6). The immediate healthcare of the patient. 42.5% of the DV had resolved the patients' complaints in a single visit. About 17.8% of the DV needed a follow-up visit to resolve the patients' complaints. 11% of DV was converted to IP admission following assessment and severity of the condition. Unwillingness for hospitalization is 2.7%. These were treated accordingly. 26% of the patients needing IP admission were treated by DV medical management team (Table no.7). The patients needing intravenous administration were recorded as the highest with 32.9%, followed by regular check-ups of chronic diseases with 30.1%. A follow-up domestic visit was needed in about 16.4% of cases. Patients required a DV due to persistent illness and catheterization, which accounted for 6.9% of cases. Patients who had developed new complaints after DV amounted to 4.1%, and DV for wound dressing or bed sores was 2.7% (Table no.8). Outpatient visits were avoided due to DV in 63% of cases. DV helped reduce IP admissions by 26%. Domestic visits that were converted to IP admissions accounted for 11%. The study showed satisfactory outcomes with a reduction of hospital visits by about 89% for patients with severe comorbidities and those facing connectivity issues (Table no.9). The total number of patients visited during DV was 73, ranging in age from 44 to 83 years with a mean age of 64 years and a standard deviation of 9.97. The number of visits ranged from a single visit to up to 10 visits, with a mean of 2.17 and a standard deviation of 2.06 (Table no.10).

DISCUSSION -

The patients described in the request were seen either at their respective residences or at the center, depending on the distance. Since it is the Doctor on Call, a well-equipped ambulance was used to reach the destination within 1 hour. However, the patient was kept on teleconsultation and received advice from the physician team through telemedicine or phone calls. The team consists of physicians, nurses, and paramedics with the primary required emergency carts in the vehicle. During this home visit, the attending team takes necessary steps to stabilize the patient's vitals. Minor issues are managed and recorded, and some cases are discussed with the primary doctor. They will adopt the instructions, including bringing the patient to the center for admission and treatment. This fulfills all the needs of the patients, just like hospital visits, and decreases stress for patients with severe

comorbidities who are bedridden and unable to travel to the hospital. It also eliminates waiting time in hospitals. There is an increased demand for domestic visits due to patients being unable to visit the hospital due to severe comorbidities, old age, and being bedridden. Breast malignancy warrants more visits, followed by brain astrocytoma and malignant rectum, accounting for more than 50% of patients with bedsores who often need wound dressings. Regular catheterization is needed in some patients, and IV lines are required in a few situations. We observed that DV will play a major role in the betterment of the healthcare system and patient care. On some occasions, ambulance services will reduce the lead time of patients in hospitalization during critical situations. These visits are more effective as they eliminate the transportation availability to remote areas. In this observational study, there were no mortalities at home. On-site, the primary doctor examined and teleconsultation was done with the primary doctor if warranted. This small group observational study emphasizes the addition of domestic visits to every medical center. The most integral part of management is assurance and recording the findings, which are useful for follow-up treatment.

Table 1: The age classification of patients based on frequency and percent.

AGE CLASSIFICATION		
AGE	FREQUENCY	PERCENT
25-44	4	5.5
45-59	20	27.4
60-74	38	52
75-89	11	15.1
TOTAL	73	100

Table 2: The gender classification of patients based on frequency and percent.

GENDER CLASSIFICATION		
GENDER	FREQUENCY	PERCENT
Male	31	42.5
Female	42	57.5
TOTAL	73	100

Table 3: Domestic visit (DV) classification of patients based on frequency and percent.

NO OF DOMESTIC VISITS		
NO OF VISITS	FREQUENCY	PERCENT
1	35	47.9
2	5	13.7
3	1	4.1
4	2	11
7	1	9.6
10	1	13.7
TOTAL	73	100

Table 4: Primary diagnosis of patients during domestic medical management team visit.

PRIMARY DIAGNOSIS		
DIAGNOSIS	FREQUENCY	PERCENT
Astrocytoma	10	13.7
CA Breast	20	27.4
CA Colon	7	9.5
CA Hypopharynx	1	1.4
CA Lung	3	4.1
Hepato Cellular Carcinoma	4	5.5
Hodgkin's Lymphoma	1	1.4
Malignant Melanoma	2	2.7
Mantle Cell Lymphoma	1	1.4
Non Hodgkin's Lymphoma	1	1.4
Lymphoma	4	5.5
CA Prostate	1	1.4
CA Rectum	10	13.7
Renal Cell Carcinoma	2	2.7
Squamous Cell Carcinoma	1	1.4
Post Surgery	2	2.7
Oligodendroglioma	2	2.7
Periampullary carcinoma	1	1.4
TOTAL	73	100

Table 5: Domestic visits fixed for by the patients.

DOMESTIC VISIT FIXED FOR		
REASON FOR VISIT	FREQUENCY	PERCENT
General Consultation	50	68.5
Emergency Management	5	6.9
Bed Sore Dressing	2	2.7
IV Administration	9	12.3
Nasogastric tube Insertion / Removal	5	6.9
Post Op Care	2	2.7
TOTAL	73	100

Table 6: How domestic visits are completed by the medical management team.

HOW DOMESTIC VISIT IS COMPLETED		
VISIT COMPLETED BY	FREQUENCY	PERCENT
Chief complaints received during call / History / Primary diagnosis / Clinical Evaluation	51	69.9
Blood tests required	4	5.5
Imaging / Electrocardiography / Sonography needed	3	4.1
Specialist consultant opinion needed	8	10.9
Ambulance service required / Emergency Admission needed	7	9.6
TOTAL	73	100

Table 7: Assessment of domestic visit by medical management team

ASSESSMENT OF VISIT		
ASSESSMENT	FREQUENCY	PERCENT
Illness Managed	31	42.5
Repeat Visits Done	13	17.8
Domestic Visit Converted to IP Admission	8	11
Patient / Attender Not willing for admission	2	2.7
IP care needing patient treated by visiting doctor & team	19	26
Total	73	100

Table 8: Evaluation of domestic visits by medical management team.

EVALUATION OF DOMESTIC VISITS		
EVALUATION	Frequency	Percent
Follow up Domestic Visit	12	16.4
Persisting Illness	5	6.9
Wound Dressings / Bed sores	2	2.7
Regular check up for chronic diseases	22	30.1
IV fluid / Injection administration	24	32.9
Catheterisation	5	6.9
New complaints	3	4.1
Total	73	100

Table 9: Result of domestic visit management.

RESULT OF DOMESTIC VISIT MANAGEMENT		
RESULT	FREQUENCY	PERCENT
Outpatient Visit Avoided	46	63
IP Admission Avoided	19	26
Domestic Visit Converted to IP Admission	8	11
Total	73	100

Table 10: Statistical description of the study

Descriptives					
Descriptive Statistics					
	N	Minimum	Maximum	Mean	SD
Age	73	44	83	64	9.97
Visit No	73	1	10	2.17	2.06

Suggestions and Recommendations- More number of teams, increased awareness, insurance and local bodies funding. More scientific analysis and recognition as a broad super speciality.

Conflict of Interest - Nil

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Ethical Committee Approval : Approved by the Institutional Medical board.

Aim: Home Visit medical assistance for oncologically diagnosed patients.

Primary Objective: Service provision to oncological patients requiring home visit by medical team.

Secondary Objective: Utilizing the domestic management and telemedicine facility linked to the team in the cancer center.

Study Site: Apollo Cancer Hospital, Chennai.

Type of Study: RETROSPECTIVE OBSERVATIONAL STUDY.

Materials and Methods :

45 oncological patients with 73 domestic visits who had treatment in our cancer center, were unable to attend hospital and necessitated the doctor medical team for management options.

Study Duration : 3rd March 2019 to 20th August 2020.

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