ORIGINAL ARTICLE

Our experience with establishing free surgical camps in underserved locations

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Abstract:
We present a review based on our experience of free surgical camps in underserved locations where people are either can not afford a high quality or even a minimum treatment or they are deprived of the basic health care facilities. We made sure to provide a health care facility that is free of cost, along with an aim to thorough investigate and aware people of the need of tertiary health care facility and not to avoid their injuries specifically awareness regarding orthopaedics related injuries.

Keywords: free surgical camps, orthopaedics, under-served localities, awareness

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Introduction:
Health care is a basic right of every human being without distinction of race, religion, economic or social condition. But a lot of the world population is deprived of this basic right. At least 4.8 billion people of the world's population do not have access to surgery facility and out of them more than 2 billion people are unable to receive surgical care just because of operation theatre availability alone.[1,2] The reasons for limited access to surgical care are numerous, including but not limited to availability of health care professionals, limited surgical supplies, and lack of transportation to get to the remote health facilities that can provide the proper surgical care.[3-5]

In Pakistan a large population resides in rural areas where medical services are inadequate including the provision of Orthopedic related services. Some communities lack trained Orthopedic Surgeons due to the hesitation of working in outreached areas and lack of surgical equipment and structure,[6] so most of the Orthopedic related injuries and pathologies are treated by quacks and medical personnel not specialized in Orthopedic,[7] which leads to a lot of complications including, neglected trauma, Chronic Osteo-myelitis, deformity etc. This is a great burden on the patients and their family as most of their expenses and time is consumed on travelling to attain better elective an emergency orthopedic facilities and treatment.[8,9] It remains a challenge to provide orthopedic facilities in rural areas of Pakistan. One of the methods of improving care in the rural areas is through education and awareness through mass medical and surgical camps.[10]

In response to these realities, the department of Orthopedics of Aga Khan Hospital, Karachi has piloted first surgical camp in 2015 in Kharadar. Due to the success of this first camp, we continue to offer camps in multiple remote areas of Karachi, Quetta and a camp to Maldives.

Aims and Objectives:
1. Provide high-quality and free of cost health care services to largest possible number of people.

2. Refer cases requiring further investigations or surgeries to tertiary care hospital.

3. Raise health awareness among the community about orthopedics related problems to avoid mismanagement and prevent complications.

Table 1: *Camps details*

S.No	Location of Camp conducted	year	Number of patients seen
1	Kharadar, Karachi	2015	178
2	Garden Diagnostic center, Karachi	2015	40
3	IMS Malir, Karachi	2018	150
4	Alyabad, Karachi	2016	50
5	Alyabad, Karachi	2016	30
6	Pharmevo company corporate, Karachi	2016	30
7	Rahimabad, Karachi	2016	50
8	AKU Hyderabad, Karachi	2016	120
9	AKU Hyderabad, Karachi	2018	650
10	Quetta	2018	3,000
11	Faafu Atoll Hospital, Nilandhoo, Maldives	2018	400
	Total		4,698

Materials and Methods:

This is a review of patients seen in 11 camps in Karachi, Quetta and two islands of Maldives from 2015 to 2018. Funds for most of the camps were provided by hospital and different pharmaceutical companies. Volunteer based selection of Orthopedic surgeons, Residents, Rheumatologist, Physio-therapists, Nursing and Paramedical staff were done. The dates of the camp are publicized far and near through banners. 4,698 patients seen in 11 medical camps arranged by our tertiary care level 1 hospital (Aga Khan University Hospital, Karachi) details about the camps are given in table-1. The services that were offered by our team of experts include but are not limited to treatment for fractures, sport injuries, Osteo-arthritis, rheumatic diseases and musculo-skeletal diseases including musculo-skeletal tumors. There were some patients who were operated in our hospital and needed follow up but because of time and distance they were unable to continue follow up, so they were very excited to get standard care at their door step. In our camp there were no trauma and acute injury cases.

The diagnosis were established on the basis of history, clinical examination and investigations including blood tests for example CBC, ESR, CRP, Calcium- Vitamin D levels, and radiological investigations such as X-rays which were available at the camps areas. Those who required MRI, DEXA scan and surgical interventions were referred to tertiary care hospitals for further management. The medications and lodging were provided free to all patients.

Challenges: Several challenges were encountered including enormous number of patients, inadequate nursing personnel and doctors during examining patients and changing of dressings, and limited laboratory and imaging investigative capability.

Discussion:

Surgical camps improve access of the population residing in outreach areas to health care, populations in such areas do not have access to health care is because of multiple reasons for example, finance, transportation, availability of health care unit and health care professionals. So surgical camps remove most of these obstacles for them i.e. they are free, within the range of access and expert health professionals are there.

Surgical camp environment is a plateform of apprenticeship for residents and juniors in health profession, where they work in the presence of senior faculty to deal with large number of patients in a short time.

As health care is the basic right of every human being, we should improve our health system and for this, populations of the out-reach areas must have the equal opportunity to be provided with this basic right. The physicians conducting the camps are obliged to act in the best interest of the patients. They should inform the whole truth about the diseases and treatments of the

patients. Each patient attending the camps are treated on an equal ground and cared for evenly.

Conclusion:
Organizing surgical camps in out-reached areas is a very good opportunity for the people living in remote areas away from proper health care facilities and such kind of activities should be organized from time to time to continue providing basic health to the vulnerable populations. For a successful camp it is important to publicize the details about the camp at least a week before the date of camp and proper arrangements should be done.

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Role and contribution of authors:
Dr. Junaid Khan, collected the data, references and did the initial write up.

Dr Shazaf Masood Sidhu, collected the data, and helped in discussion writing.

Dr. Rizwan Haroon, collected the references and helped in introduction writing.

Dr. Masood Umer, critically review the article and made final changes.

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References:
1. Alkire BC, Raykar NP, Shrime MG, Weiser TG, Bickler SW, Rose JA, et al. Global access to surgical care: a modelling study. The Lancet Global Health. 2015;3(6):e316-e23.
2. LM, Weiser TG, Berry WR, Lipsitz SR, Merry AF, Enright AC, et al. Global operating theatre distribution and pulse oximetry supply: an estimation from reported data. The Lancet. 2010;376(9746):1055-61.
3. Linden AF, Sekidde FS, Galukande M, Knowlton LM, Chackungal S, McQueen KK. Challenges of surgery in developing countries: a survey of surgical and anesthesia capacity in Uganda's public hospitals. World journal of surgery. 2012;36(5):1056-65.
4. Swindlehurst H, Deaville J, Wynn-Jones J, Mitchinson K. Rural proofing for health: a commentary. Rural and Remote Health. 2005;5(411).
5. Hsia RY, Mbembati NA, Macfarlane S, Kruk ME. Access to emergency and surgical care in sub-Saharan Africa: the infrastructure gap. Health policy and planning. 2011;27(3):234-44.
6. Rao M, Godajkar P, Baru R, Bisht R, Mehrotra RP, Dasgupta R, et al. Draft National Health Policy 2015. Economic & Political Weekly. 2015;50(17):95.
7. Dada A, Yinusa W, Giwa S. Review of the practice of traditional bone setting in Nigeria. African health sciences. 2011;11(2).
8. Weichel D. Orthopedic surgery in rural American hospitals: A survey of rural hospital administrators. The Journal of Rural Health. 2012;28(2):137-41.
9. Hays R, Veitch C, Evans R. The determinants of quality in procedural rural medical care. Rural and remote health. 2005;5:1-10.
10. Atiyeh BS, Gunn SWA, Hayek SN. Provision of essential surgery in remote and rural areas of developed as well as low and middle income countries. International Journal of Surgery. 2010;8(8):581-5.