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Research Article

**TO MONITOR PATIENTS IN A GENERAL SURGERY CLINIC
BY TELEMEDICINE**¹Dr Aiza Mukhtar, ²Dr Asfa Ajmal Zakki, ³Dr Zuha Afrinish¹Mayo Hospital Lahore, ²DHQ Hospital Pakpattan, ³Lahore General Hospital Lahore.**Article Received:** June 2020**Accepted:** July 2020**Published:** August 2020**Abstract:**

Aim: Telemedicine is getting increasingly well known in numerous clinical claims to fame yet not many examinations have been led in General Surgery. This examination means to assess the possibility of its presentation in this strength.

Methods: A forthcoming randomized clinical preliminary (RCT) was led in 240 patients to look at ordinary versus telemedicine follow-up in the outpatient facilities. The essential result was the attainability of telemedicine development and the auxiliary results were its clinical effect and patient fulfillment. Results: Patients were selected between July 2018 and June 2019 and there were no factually huge contrasts between the gatherings' qualities. The essential result was accomplished in 93% of the ordinary follow-up gathering and in 77% of the telemedicine gathering ($P \frac{1}{4} 0.004$). No distinctions were found in clinical results ($P \frac{1}{4} 0.836$) or understanding fulfillment ($P \frac{1}{4} 0.099$).

Conclusion: Telemedicine is a decent integral help to encourage follow-up the executives in chosen patients from a General Surgery division.

Keywords: General Surgery Clinic, Telemedicine.

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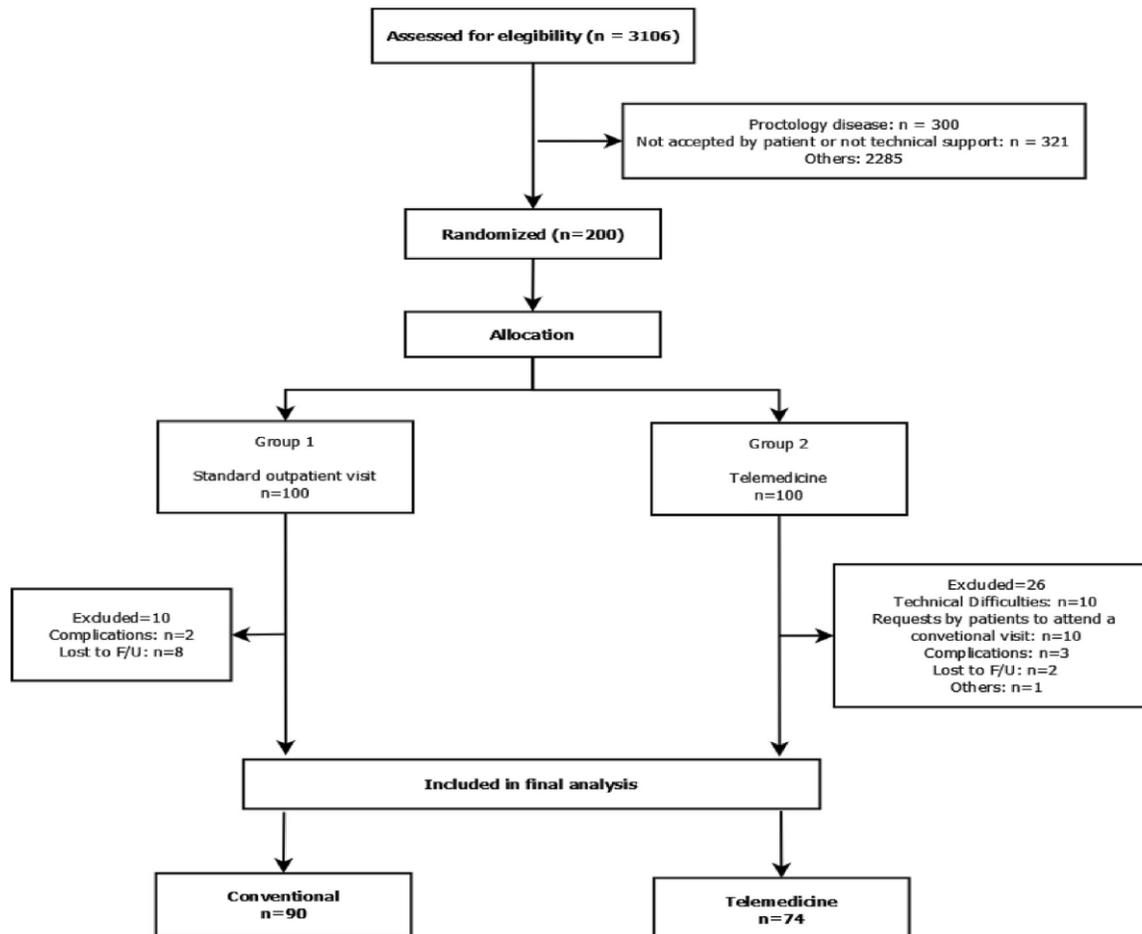
INTRODUCTION:

Medical procedure has to a great extent developed through time in the entirety of its various measurements. The most significant upgrades have by and large been identified with developments in careful procedure, with the execution of laparoscopic and automated medical procedure, and perioperative care, which permits better treatment results and quicker recovery. In any case, very few upgrades have been presented in pre and postoperative visits. When all is said in done, we despite everything visit patients face-to-face in the outpatient centers which are for the most part stuffed. Thusly, there is a need to refresh our subsequent conventions to contain or diminish costs while endeavoring to keep up or improve clinical results and patient fulfillment. Given that innovation has been firmly identified with human services and careful turns of events, it appears to be fitting to likewise utilize innovation in tolerant contact with human services. Such advancement could accompany the usage of telemedicine services. Telemedicine is getting increasingly well-known and helpful in numerous clinical strengths yet few studies have been led in General Surgery, most likely in light of the sort of patients and the sort of maladies rewarded. Reports of telemedicine as a corresponding apparatus when all is said in done center in improving patient administration and fulfillment. These encounters concern for the most part clinical strengths, for example, dermatology, radiology, cardiology and endocrinology, in spite of the fact that not every one of them with acceptable outcomes. There are additionally some randomized clinical preliminaries in careful specialties, primarily orthopedic medical procedure, which have illustrated the possibility of actualizing telemedicine services with promising results. In other non-randomized investigations telemedicine diminished the quantity of visits to crisis divisions in old patients and appeared to be very much acknowledged by pediatric and general medical procedure patients. Nevertheless, in spite of there are a few reports of the utilization of telehealth frameworks in General Surgery, even some ongoing investigations in complex medical procedure, for example, liver transplantation, not many of them are RCT.

METHODOLOGY:

An imminent RCT following CONSORT rules was conveyed out with two equal gatherings, one with regular follow-up after treatment in the outpatient facility and the other with telemedicine follow-up through a video call. Inclusion models comprised of being treated in the General Surgery division, essential PC information (capacity to utilize email or then again an informal organization), having the important gear (PC with webcam) and age somewhere in the range of 19 and 77 years or having an accomplice who met these models. Avoidance rules were any handicap making telemedicine follow-up unthinkable, for example, visual deficiency, deafness or mental inability, proctologic treatment, because of the trouble of depicting what's more, indicating inconveniences in the careful region, and clinical difficulties before release more serious than Clavien Dindo II. Patients were likewise rejected from the examination on the off chance that they pulled back assent. Patients who met these measures were offered by the specialist in charge the opportunity to select the examination the second they were released from the emergency clinic. On the off chance that they concurred, they gave educated assent and were appointed successively to the comparing gathering. Assignment was performed utilizing an automated square randomization list with a portion proportion 1:1. By and by, in view of outstanding burden in the outpatient facility and given that we had not an appropriate circuit for the telematic gathering, the enlistment of patients in the investigation was restricted to 10 patients for every week. Accepting an alpha degree of 0.06 and a beta degree of 0.13 with reciprocal complexity, we required 84 patients for every gathering to distinguish contrasts between the extent of patients that bombed the follow-up, which we determined as 12% in the regular gathering and 30% in the telemedicine gathering. With these outcomes, the last investigation test included 210 patients, 110 in each gathering, who were included from July 2018 until June 2019. To look at the extent of the results between the gatherings, unmitigated factors were dissected utilizing a Chi-Square test. To think about medians between gatherings, ordinal factors were dissected utilizing the Mann-Whitney U test. Factual hugeness was set at P 0.06. The factual examination was performed utilizing the SPSS program (Variant 26) by an autonomous specialist and following a for every convention investigation.

Figure 1:

**RESULTS:**

Between July 2018 and June 2019, 210 patients were arbitrarily dispensed to one of the gatherings, with 100 patients in each arm of the examination (Fig. 1). There were no contrasts between gatherings (Table 1). Time to visit was generally somewhere in the range of 2 and a month after release, without any contrasts between gatherings ($P = 0.168$), and visits were by and large shorter in the telemedicine gathering yet in addition without factually critical contrasts ($P = 0.154$). The most as often as possible rewarded ailments were cholelithiasis and intense cholecystitis ($n = 68$),

inguinal hernia ($n = 35$), intense a ruptured appendix ($n = 34$) and different hernias, for example, umbilical or epigastric hernias ($n = 22$) without any contrasts between gatherings ($P = 0.844$). A total rundown of ailments is appeared in Table 2. The most frequent medicines of these ailments were laparoscopic cholecystectomy ($n = 66$), inguinal hernioplasty ($n = 35$) and laparoscopic appendectomy ($n = 28$), likewise without any contrasts between gatherings ($P = 0.462$). A total rundown of medicines is appeared in Table 1.

Table 1:

Table 1		
Patient Demographics Factor	Telemedicine	Clinic
Upper extremity fractures	80	33
Lower extremity fractures	12	26
Postoperative	9	7
New patients	35	24
Follow-up patients	66	42
Average age	8.5	9.4

DISCUSSION:

In the current examination, we show that telemedicine follow-up in a General Surgery division is doable and good for those patients that meet some fundamental choice models. Past investigations have for the most part been led in clinical strengths. We can likewise discover a few encounters in postoperative care in careful specialties, for example, gynecology, urology or orthopedic patients however relatively few in General Surgery. This could be because of the sort of patients and illnesses rewarded, in most cases neoplastic, who may require complex medical procedures, looking after injuries or a more straightforward and empathic contact. Be that as it may, in this investigation we wanted to incorporate

patients going from older with a few comorbidities, some not even appropriate for medical procedure, who required preservationist medicines, to fit patients with malignant growth that went under medical procedure, in whom telemedicine was corresponding to the ordinary follow-up visits. Contingent upon the patient qualities telemedicine follow-up could be utilized corresponding or as an option in contrast to traditional eye to eye development. Follow-up was accomplished in 76% of patients in the telemedicine arm of the examination utilizing PCs and webcams as it were. Our principle concern was the conceivable presence of an advanced gap in our patients, comprehended as an absence of the necessary material or informatic information to achieve the visit.

Figure 2:

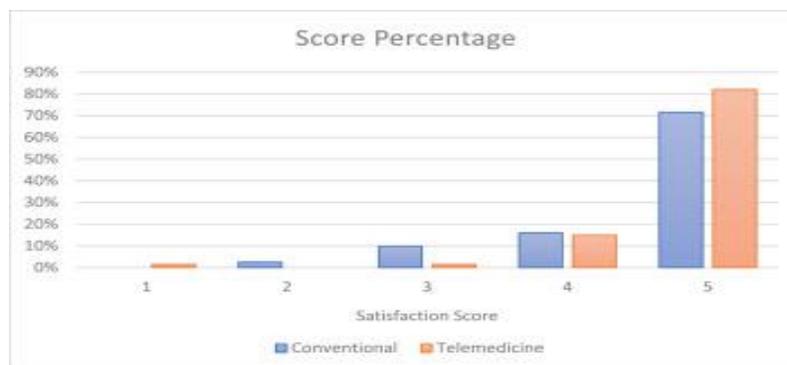


Table 2:

Table 1—Baseline characteristics of patients with diabetic ulcers randomized to either telemedical or standard outpatient monitoring

	Telemedical monitoring (n = 193)	Standard outpatient monitoring (n = 181)
Age at inclusion (years)	66.8 ± 13.0	66.7 ± 12.8
Men	151 (78)	129 (71)
BMI (kg/m ²)	28.9 ± 6.2	28.9 ± 6.0
Smokers	42 (26)	30 (20)
Nonsmokers	119 (74)	119 (80)
Type 1 diabetes	24 (15)	25 (16)
Type 2 diabetes	131 (85)	127 (84)
Years of diabetes at inclusion	14 (7–20)	14 (7–21)
Ulcer duration before inclusion*	1 (1–2)	1 (1–3)
Comorbidities		
Heart disease	64 (34)	59 (33)
Hypertension	135 (70)	133 (74)
Cerebrovascular disease	21 (11)	17 (9)
Chronic pulmonary disease	11 (6)	20 (11)
Connective tissue or rheumatic disease	10 (6)	9 (5)
Liver disease	1 (1)	3 (2)
Diabetes	193 (100)	181 (100)
Hemiplegia	1 (1)	3 (2)
Renal disease	17 (9)	11 (6)
Cancer	6 (3)	1 (1)
Other	36 (19)	42 (23)

Data are mean ± SD, n (%), or median (interquartile range). *For ulcer duration of less than 14 days, 0 months was chosen as duration.

CONCLUSION:

As a determination, telemedicine is a decent reciprocal and plausible help to encourage postoperative administration in chose General Surgery patients. This alternative creates great fulfillment rates and keeps up clinical results.

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