

PATIENTS PERCEPTION AND ACCEPTANCE TOWARDS TELE NEPHROLOGY

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INTRODUCTION



- Adoption of telemedicine technology has permitted care to be delivered efficiently and effectively in the home environment and removed the dependence on health facilities.
- Remote monitoring of kidney patients offers real time monitoring and recording of the therapy as well as an interactive interface with the healthcare providers that may allow both regular follow-ups as well as proper communication between patient and healthcare provider.
- Tele nephrology had been successful in managing patients of U.S, Canada and Australia which improved access to healthcare and helped in diagnosis and improved quality of patients.

RESEARCH QUESTION

- What are the preferences of patients and healthcare providers towards the use of telehealth technology for dialysis?
- What is the awareness level of adults towards tele nephrology?

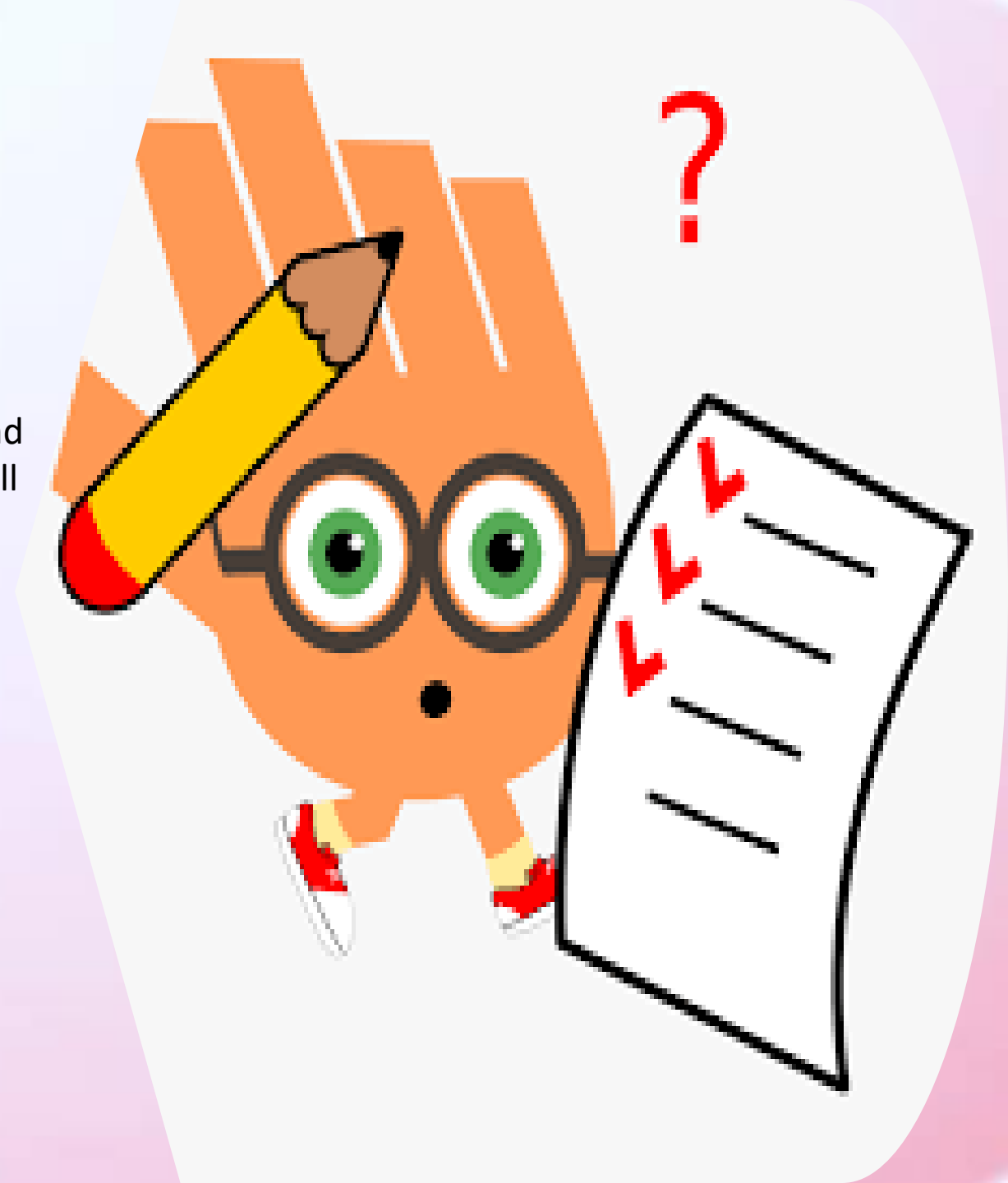


Rationale of study

Despite of advanced technology and impact of Covid-19, Indian population still has mixed response on accessing healthcare technology. This study will help us to analyze the acceptance and perception of patients towards tele nephrology. This project will also help to analyze the challenges faced by general population while using telemedicine.

Objective of study

To study perception and readiness of patients towards tele nephrology?



Literature review

- Over the decade various studies were done by market scholars across the globe to analyze online doctor consultation.
- Various studies were done to understand the accessibility of telemedicine including tele nephrology. Tele nephrology platform provides direct interaction between patient and nephrologist through online consultation or video conferencing.
- For implementation of tele nephrology there is a need to understand ethical and legal implications.
- A survey was done in U.S(2022) to understand the perception and utility of tele nephrology. In total they received 150 responses out of which most of them were satisfied with tele nephrology concept.
- An empirical study was conducted on the use of remote monitoring and its outcomes.



Methodology

- The study period was for 3 months from 20th February 2023 to 19th May 2023.
- To understand the perception and readiness to accept tele nephrology platform to access healthcare for which we conducted primary research through online google form.
- Through google form and based on interviews, the relevant information regarding the awareness, perception and acceptance was collected from the target population.
- Tools used – Google form, SPSS Software, Excel
- Study Design – Cross-section study design
- Sampling Technique used – Stratified sampling technique
- Sample Size – 500

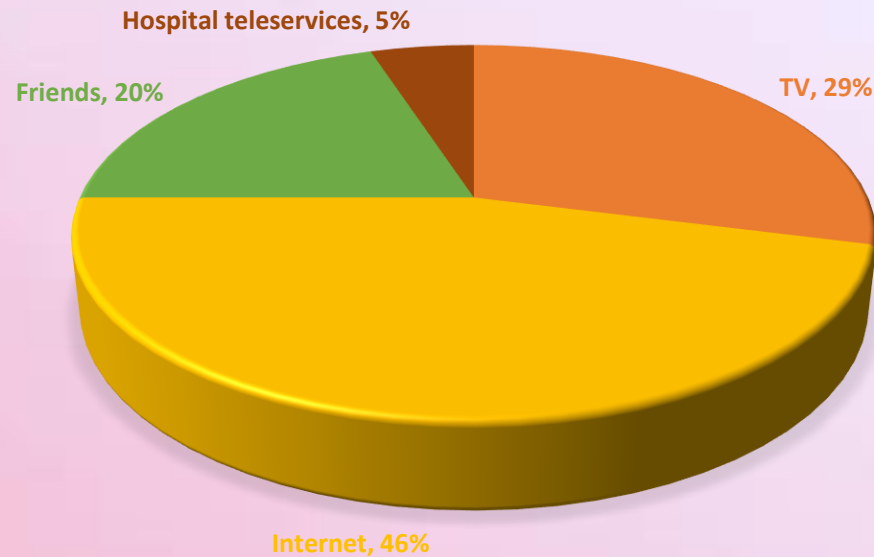


KEY FINDINGS

The survey conducted was a qualitative based research which was based on the perception and awareness towards tele nephrology.

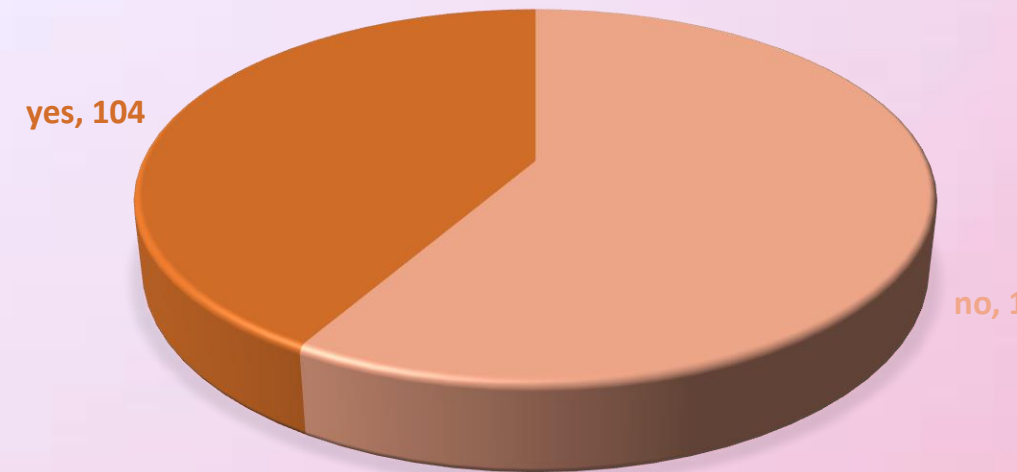
The survey was based on understanding the mindset of patients towards acceptance of this new concept, further the data was analyzed accordingly.

SOURCE OF INFORMATION REGARDING TELECONSULTATION



The most common source of information regarding teleconsultation services was from internet services(46%) and television(29%).

AWARENESS ABOUT TELECONSULTATION



Most of the respondents were not educated, maximum of them were not aware about teleconsultation services.

Distribution of preference according to academic qualification

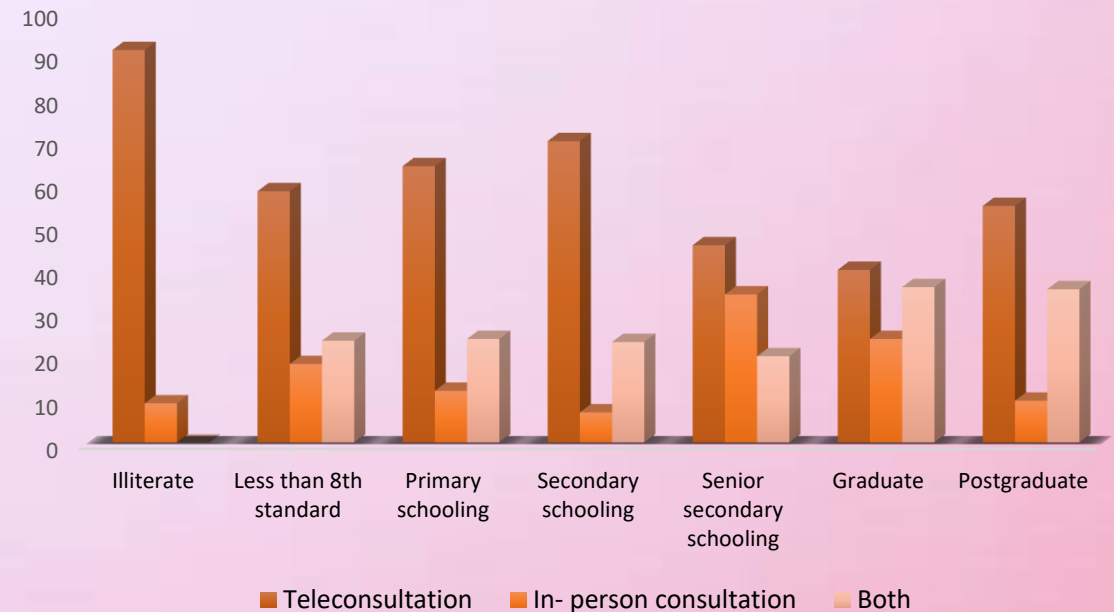
			Tele nephrology=1, in-person=2, both=3			Total
			1	2	3	
<u>EDUCATION STATUS</u>	Illiterate	Count	10	1	0	11
		Percentage	90.9%	9.1%	0.0%	100.0%
	Less than 8th standard	Count	32	10	13	55
		Percentage	58.2%	18.2%	23.6%	100.0%
	Primary schooling	Count	32	6	12	50
		Percentage	64.0%	12.0%	24.0%	100.0%
	Secondary schooling	Count	30	3	10	43
		Percentage	69.8%	7.0%	23.3%	100.0%
	Senior secondary schooling	Count	16	12	7	35
		Percentage	45.7%	34.3%	20.0%	100.0%
	Graduate	Count	10	6	9	25
		Percentage	40.0%	24.0%	36.0%	100.0%
	Postgraduate	Count	17	3	11	31
		Percentage	54.8%	9.7%	35.5%	100.0%
Total		Count	147	41	62	250
		Percentage	58.8%	16.4%	24.8%	100.0%

Chi-square test to find association between education and behavior of respondents towards opting

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.420 ^a	12	.024

According to above chi square test there is a significant association between academic qualification and preference of respondents towards opting telemedicine.

Preference according to academic qualification



Distribution of occupation status and preference opted

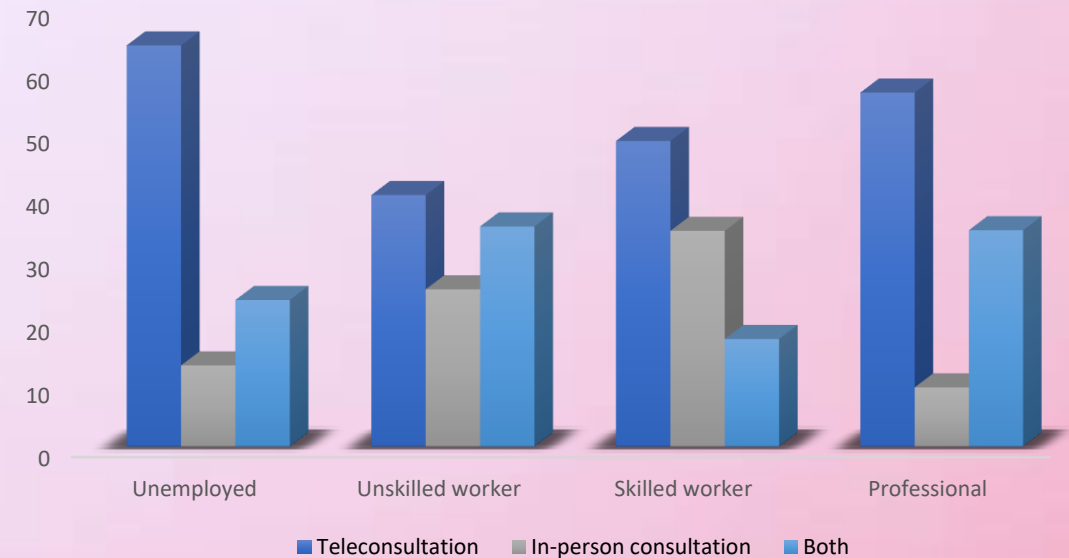
			Tele nephrology=1, in-person=2, both=3			Total
			1	2	3	
Occupation status	Unemployed	Count	104	21	38	163
		Percentage	63.8%	12.9%	23.3%	100.0%
	Unskilled worker	Count	8	5	7	20
		Percentage	40.0%	25.0%	35.0%	100.0%
	Skilled worker	Count	17	12	6	35
		Percentage	48.6%	34.3%	17.1%	100.0%
	Professional	Count	18	3	11	32
		Percentage	56.3%	9.4%	34.4%	100.0%
Total		Count	147	41	62	250
		Percentage	58.8%	16.4%	24.8%	100.0%

Chi- square test to find association between occupation status and preference opted

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.470 ^a	6	.017

Above chi-square test shows string significant association between occupation and choice of treatment opted by kidney patients.

Relation between occupation and prefrence opted



Distribution between socio-economic class and choice of consultation opted

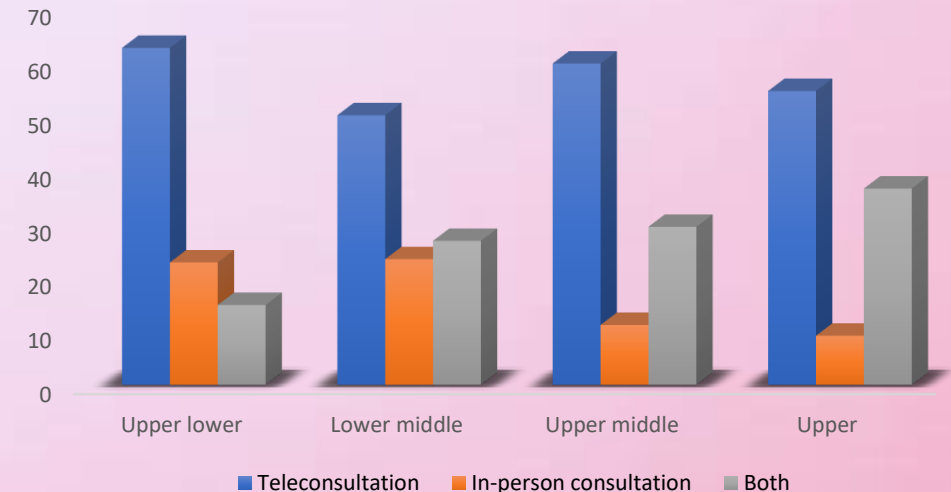
			Tele nephrology=1, in-person=2, both=3			Total
			1	2	3	
Socioeconomic status	Upper lower	Count	55	20	13	88
		Percentage	62.5%	22.7%	14.8%	100.0%
	Lower middle	Count	15	7	8	30
		Percentage	50.0%	23.3%	26.7%	100.0%
	Upper middle	Count	59	11	29	99
		Percentage	59.6%	11.1%	29.3%	100.0%
	Upper	Count	18	3	12	33
		Percentage	54.5%	9.1%	36.4%	100.0%
Total		Count	147	41	62	250
		Percentage	58.8%	16.4%	24.8%	100.0%

Chi-square test to find association between socioeconomic class and ready to accept tele nephrology

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.698 ^a	6	.048

The chi-square test shows significant association between socio-economic class and choice to opt tele nephrology in future.

Relation between socio-economic class and choice of consultation opted



CONCLUSION



A total of 250 responses were received from diverse group of age that is ranging from 18 years to 50 years and above.

It is clear from our analysis that patients are well aware about their health and ready to accept tele nephrology concept in future.

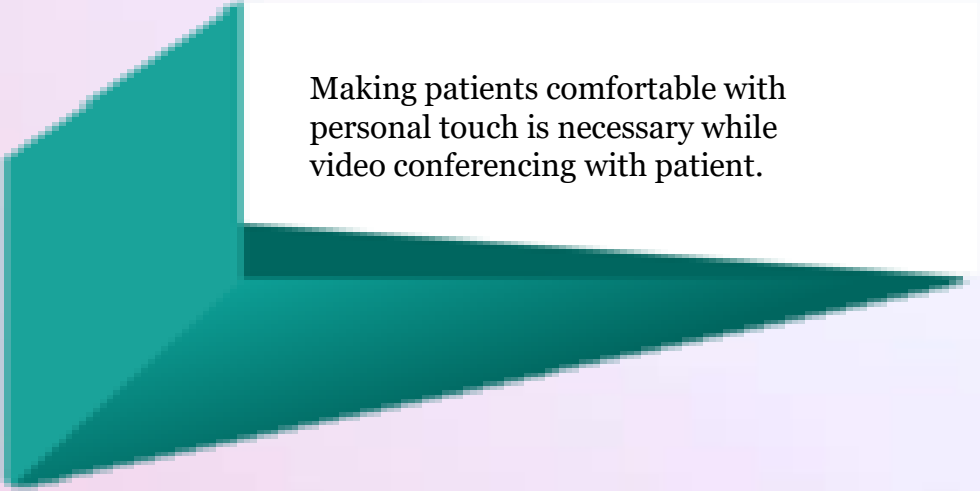
Apart from this patients want to utilize this opportunity of using video conferencing but only during selected situations. After Covid-19 pandemic people have a positive mindset towards telehealth platform and it is believed that this platform provides better communication between patient and healthcare provider.

LIMITATION



- A failed telehealth system in India can be a reason of not accepting tele nephrology easily.
- This model of nephrology also raises the question whether medical test and investigation will be ordered in the absence of being able to physically conduct a physical examination of patient.
- It also puts doctor in a difficult situation of making a diagnosis without a proper understanding of medical history and social context, in addition to removing a opportunity to conduct physical examination.

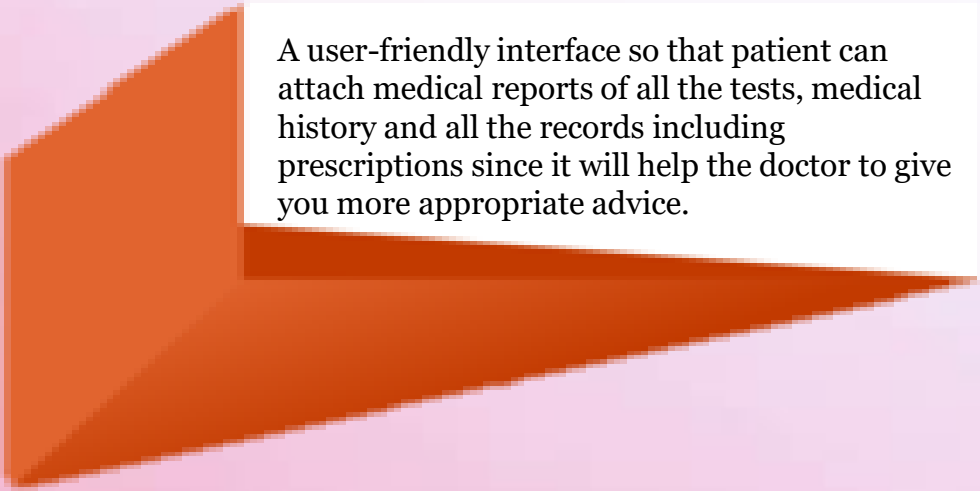
SUGGESTIONS



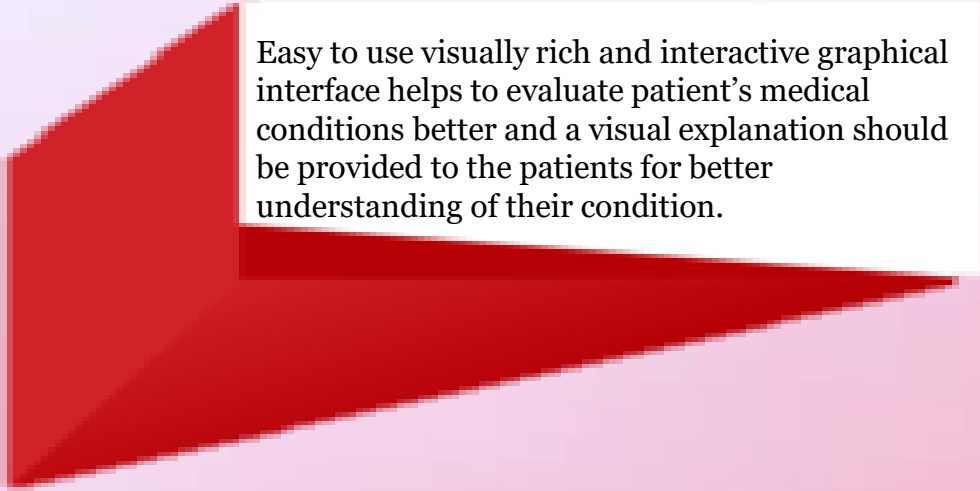
Making patients comfortable with personal touch is necessary while video conferencing with patient.



In case of non- availability of doctors, appropriate waiting time should be given to patients.



A user-friendly interface so that patient can attach medical reports of all the tests, medical history and all the records including prescriptions since it will help the doctor to give you more appropriate advice.



Easy to use visually rich and interactive graphical interface helps to evaluate patient's medical conditions better and a visual explanation should be provided to the patients for better understanding of their condition.

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