1

Clinician's perception of healthcare artificial intelligence

This survey is only designed for medical professionals (doctors/nurses/physicians). You were selected as a possible participant in this study because your profession is related to healthcare. The use of artificial intelligence is growing and is likely to be an integral part of healthcare in the near future. Artificial intelligence refers to computer systems that follow respective governing bodies and researchers develop and integrate AI into the healthcare system. Clinicians will be required to work with artificial intelligence-based clinical decision support systems. The short online survey is designed to understand clinicians' overall perception of AI-based clinical decision support systems. The survey will take approx. 5 minutes to complete. We are interested in your expertise and their willingness to use AI in their routine clinical practice. The survey is part of a research project that aims to develop a framework for scientists design clinician-centered AI decision support systems. In this survey, clinicians will be presented with different healthcare scenarios where artificial intelligence-based clinical decision support and generative results based on past data is used (you/healthcare worker) in decision making. For example, automated clinical notes are generated based on conversations between clinician and patient, automated diagnosis using images (mobile app for skin cancer detection), machine learning based prognosis models (patient survival prediction, patient readmission, length of stay, etc.) and others.

Statement
Add image
Add video
Add audio
Post required
Audition
Hide
Timer

Add question

Logic

1

How do you rate your knowledge about artificial intelligence (AI)?

- No idea
- Somewhat Familiar
- Familiar
- Very Familiar
- Expert

2

Are you willing to receive training about healthcare AI?

From your employer/organization

- Yes
- No

3

In your opinion, what are the factors preventing you (or other clinicians in your domain) from using AI

Choose as many as you wish

- Black-box nature of AI – We don't understand how it works
- I don't trust the technology
- We think it is not safe for patients
- It will be challenging for us to learn AI in our busy schedule
- It is not necessary in our specialty
- It is expensive
- AI systems are not accessible for incorrect recommendations / diagnoses.
- We don't have any clinical protocol designed for AI
- Most AI research have been conducted in controlled environment. We dont know its effectiveness in real clinical setting.
- Other (key in)

4

Are you willing to learn about how healthcare AI functions?

Self-learn — Considering your existing workload

- Yes
- No

5

I think a large amount of thinking will be required when using an artificial intelligence-based clinical decision support system (AI-CDSS) to complete the tasks.

- Strongly Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Agree
- Strongly Agree

6

Clinicians are held accountable for the patient outcome (good or bad) in healthcare. Do you think artificial intelligence-based clinical decision will be penalized for the patient's harm. How does this "accountability" have impact your decision to use AI in your everyday clinical practice? How in your opinion this problem can be solved?

7

Overall, I think using AI to complete clinical tasks will be:

- Very Demanding
- Demanding
- Somewhat Demanding
- Neutral
- Somewhat Easy
- Easy
- Very Easy

8

I think using AI in my clinical practice will reduce my overall workload

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Agree
- Strongly Agree

9

I think I will need to work very hard to get familiar with AI to use it for clinical activities

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Agree
- Strongly Agree

10

I think using AI would improve my clinical decision making skills/abilities

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Agree
- Strongly Agree

11

I think using AI would confuse me and hinder my clinical decision making skills

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Agree
- Strongly Agree

12

I think using AI would allow me to accomplish clinical tasks more quickly

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Agree
- Strongly Agree

13

I think using AI will slow me down

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Agree
- Strongly Agree

14

I think AI in healthcare is trustworthy

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Agree
- Strongly Agree

15

I think using AI for my clinical work will put my patients at risk (reduce patient safety)

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Agree
- Strongly Agree

16

In your opinion, what can the government or any other concerned authority do to motivate you (or clinicians in general) to adopt AI in your clinical practice

- Provide financial incentive/ grants/ tax incentive
- Change the way we practice
- Hold AI being with clinicians responsible for patient harm
- Develop standardized policies for AI
- Develop "easy to use" AI
- Develop transparent and explainable AI
- Develop clinical protocols for AI
- Other (key in)

17

I think using AI will put my patients' privacy at risk

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neutral
- Somewhat Agree
- Agree
- Strongly Agree

18

Assuming I have access to AI, I would intent to use it

- Not at all
- Rarely
- Somewhat rarely
- Neutral
- Sometimes
- Frequently
- All the time

19

Have you ever used any AI in your work or in research?

- No
- Yes

skip logic

if	Yes	is selected	
then	Skip to	Q21	Go to question
if	No	is selected	
then	Skip to	Q20	Go to question

20

How was your overall experience of using the AI? (For other option: please describe in detail)

- It was challenging to use
- It was easy to use
- It increased my workload
- It lowered my workload
- It was easy to learn
- It was hard to learn
- I understand all AI output
- AI outputs were not clinically meaningful
- I think we need strong statistical knowledge to under AI that I used
- I think its special training is required to use AI
- Other (key in)

21

Given a chance, how do you want AI to assist you in the clinical tasks?

- Automate clinical tasks taking task
- Identify high risk patients
- Automate insurance claims process
- Other (key in)

22

In your opinion, what are the advantages or disadvantages of using AI in your specific clinical practice?

23

To show that you are paying attention, please select the "none of the above" option as your answer

- Strong
- Inefficient
- Weak
- Hostile
- None of the above

skip logic

if	None of the above	is selected
then	Skip to Q25	Go to question

24

What is your designation?

Please type in your designation in the other option

- Nurse Practitioner
- Registered Nurse
- Medical Doctor
- Resident
- Other (key in)

25

What is your clinical expertise?

Please type in your expertise in the other option

- General Surgeon
- Family Medicine
- Pediatrics
- Geriatrics
- Emergency Department
- ICU
- Other (key in)

26

For approximately how many years have you been serving in your current position

- 0-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- More than 20 years

27

With which gender do you identify yourself with

- Female
- Male
- Other
- Do not want to disclose

28

With which race do you identify yourself with

- African American
- White American
- Hispanic
- Asian
- Other
- Do not want to disclose

29

With which age group do you identify yourself with

- 20-30 years
- 31-40 years
- 41-50 years
- 51 years and above

Add question

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