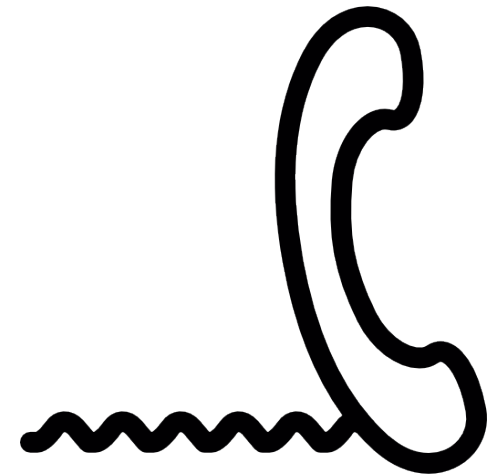


AI ON THE LINE: TELEPHONE CONSULTATION TRAINING THROUGH CLINICAL SIMULATIONS – A FEASIBILITY STUDY.

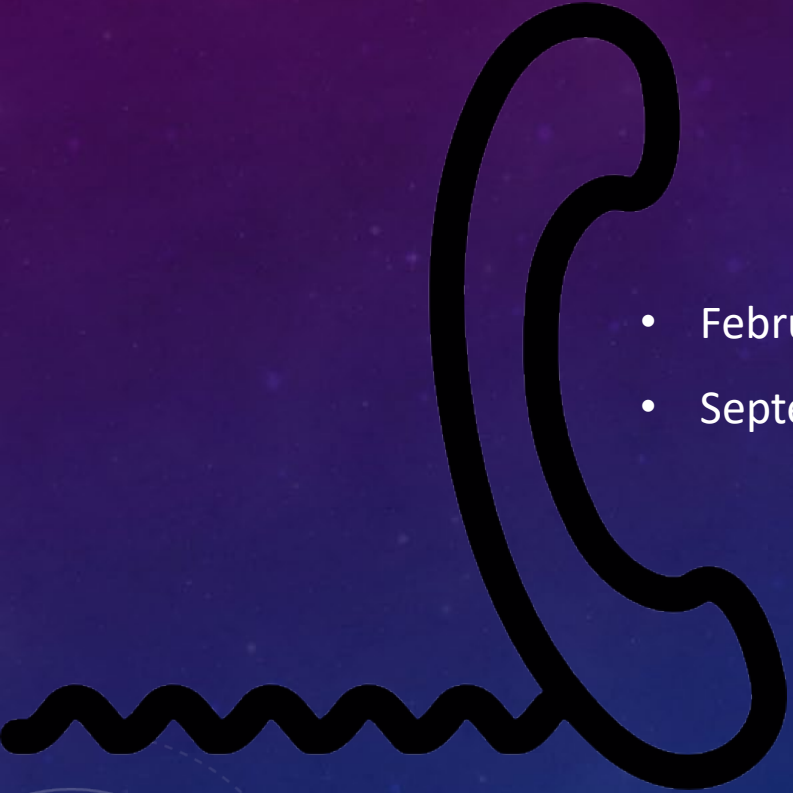
ALEJANDRO PEREZ CAO

CARL HEFFERNAN

CHANTAL SIMON



THE RISE OF REMOTE CONSULTATIONS

- 
- February 2020 – 13.5% of consultations in general practice were by telephone
 - September 2023 – 23.8% of consultations in general practice were by telephone

THE RISE OF REMOTE CONSULTATIONS

Although some return to face to face consultations, the 'pandemic effect' has persisted

WHY?

- Move to 'online triage' model
- Patients often prefer it - 56-58% of patients agree telephone appointments are a convenient way to receive care*

* Anderson J, Walsh J, Anderson M and Burnley R, 'Patient satisfaction with remote consultations in a primary care setting', Cureus, 2021, vol. 13, no. 9, e17814, retrieved 27 September 2022, www.ncbi.nlm.nih.gov/pmc/articles/PMC8498974 and Newbould J, Abel G, Ball S, Corbett J, Elliott M, Exley J, Martin A, Saunders C, Wilson E, Winpenny E, Yang M and Roland M, 'Evaluation of telephone first approach to demand management in English general practice: observational study', BMJ, 2017, vol. 358, retrieved 27 September 2022, www.bmj.com/content/358/bmj.j4197

THE RISE OF REMOTE CONSULTATIONS

First contact with GP out-of hours services is usually by telephone, with a large proportion of encounters managed entirely over the phone.

An estimated that 70% of all primary care interventions are now provided by after-hours/weekend services*.

SO, DO PATIENTS APPROVE?

Yes * - but only so far as they see a phone discussion as a convenient alternative to a face-to- face consultation and not as a barrier to accessing services.

THE RISKS OF TELEPHONE CONSULTATION*

- Loss of information from non-verbal cues and inability to examine the patient
- Reduced confidence in diagnosis
- Poorer clinical outcomes
- Exacerbation of inequalities for vulnerable and elderly populations
- More transactional consultations with less nuance – ‘hidden agendas remain hidden’
- Increased clinician fatigue and stress
- Reduced job satisfaction

* Source: Institute for Government (2023) - [Performance Tracker 2022/23: Spring update - General practice](#) | Institute for Government

THE RISKS OF TELEPHONE CONSULTATION*

Three general themes emerge from patient complaints:

- **Failure to see the patient**
- **Failure to communicate**
- **Failure to safety net**

* Source: IMDDUS

SECONDARY CARE TELEPHONE CONSULTING

- No overall statistics available
- Increase in use of telephone consultation for out-patient appointments – particularly follow up appointments – Nuffield Trust estimates 25% of surgical follow up appointments now undertaken by telephone
- Virtual fracture clinics operational in 85% of NHS Trusts with A&E departments – most use telephone consulting

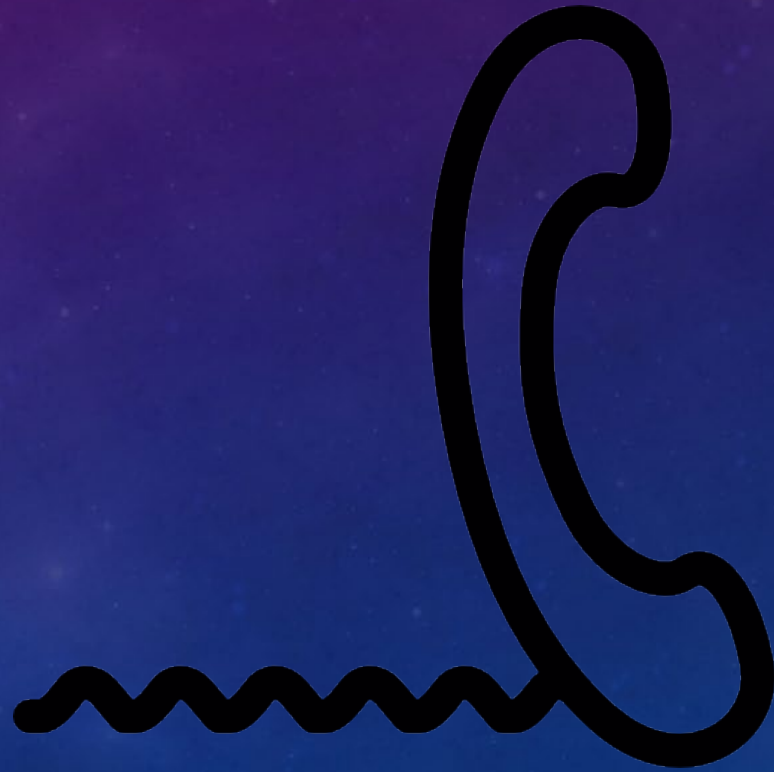
TRAINING FOR TELEPHONE CONSULTING

- Lots available - most is e-learning - very little evidence of effectiveness
- Training clinicians to perform telephone consultations increases patient satisfaction, reduces face to face consultations by 1.6% and reduces home visits in primary care by 2.9%

* Khan, 2013. <https://bmjopenquality.bmj.com/content/2/1/u202013.w1227>

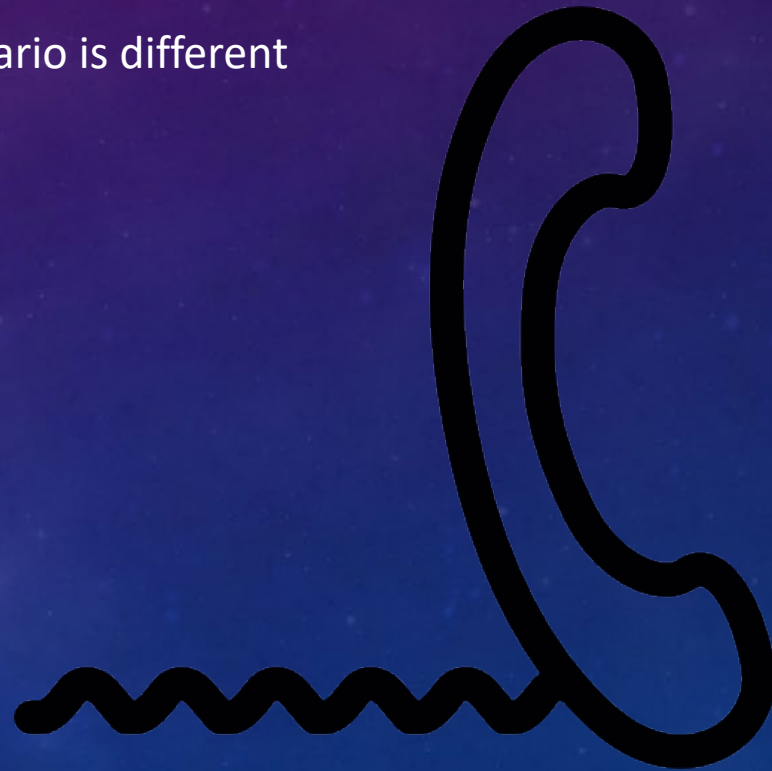
PROBLEMS WE HAVE ENCOUNTERED

- Manpower
- Limited capacity
- Equipment



ADVANTAGES OF AI SIMULATION

- Infinite potential for unlimited scenarios – every scenario is different
- Anywhere/any time access
- Any language
- No need for special equipment
- Reduced manpower cost



DISADVANTAGES OF AI SIMULATION

- Development time and costs
- Scenarios are only as good as the information available to the tool (GIGO)



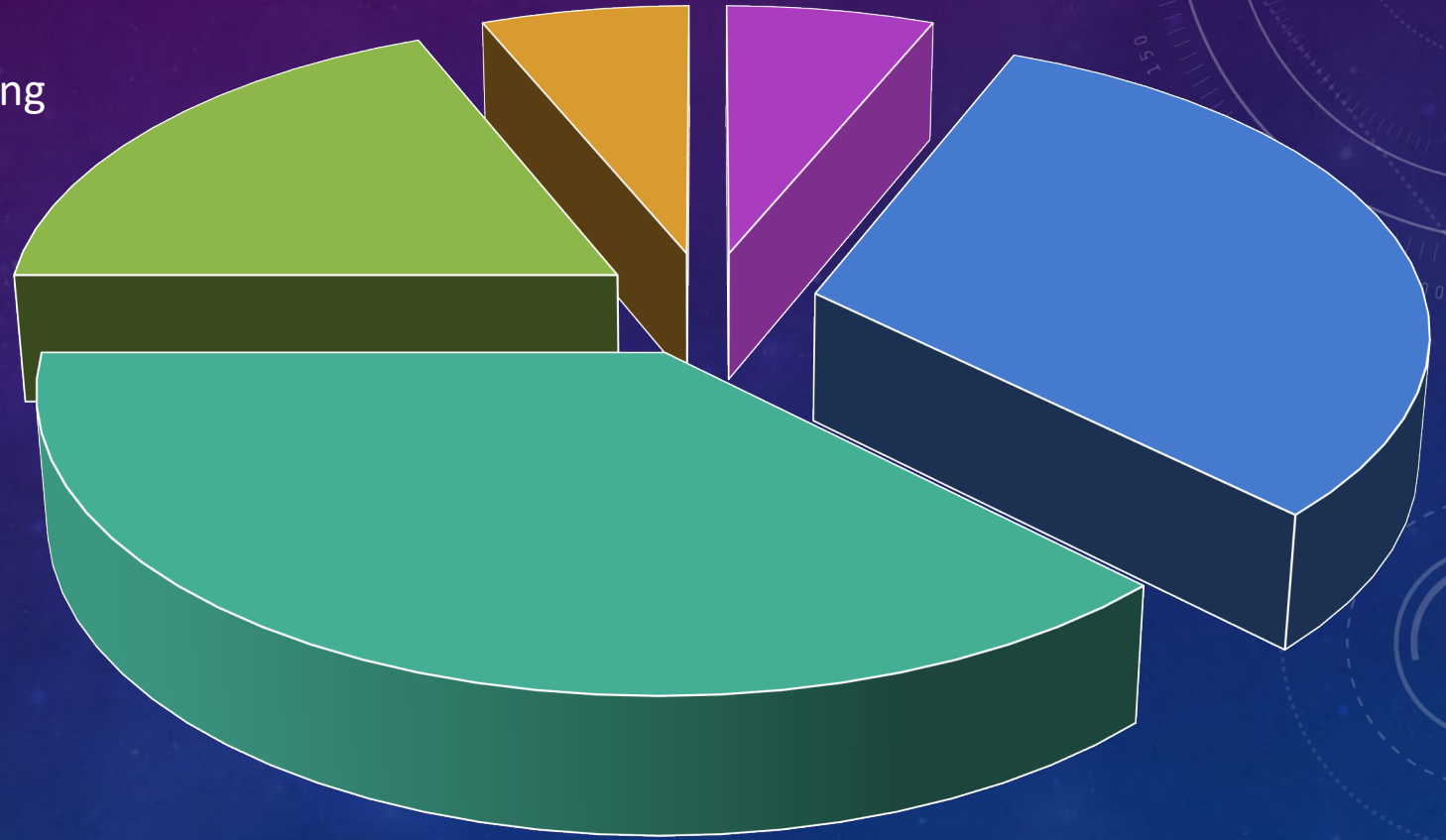
DEMONSTRATION



PILOTING RESULTS n=16

I am confident with telephone consulting

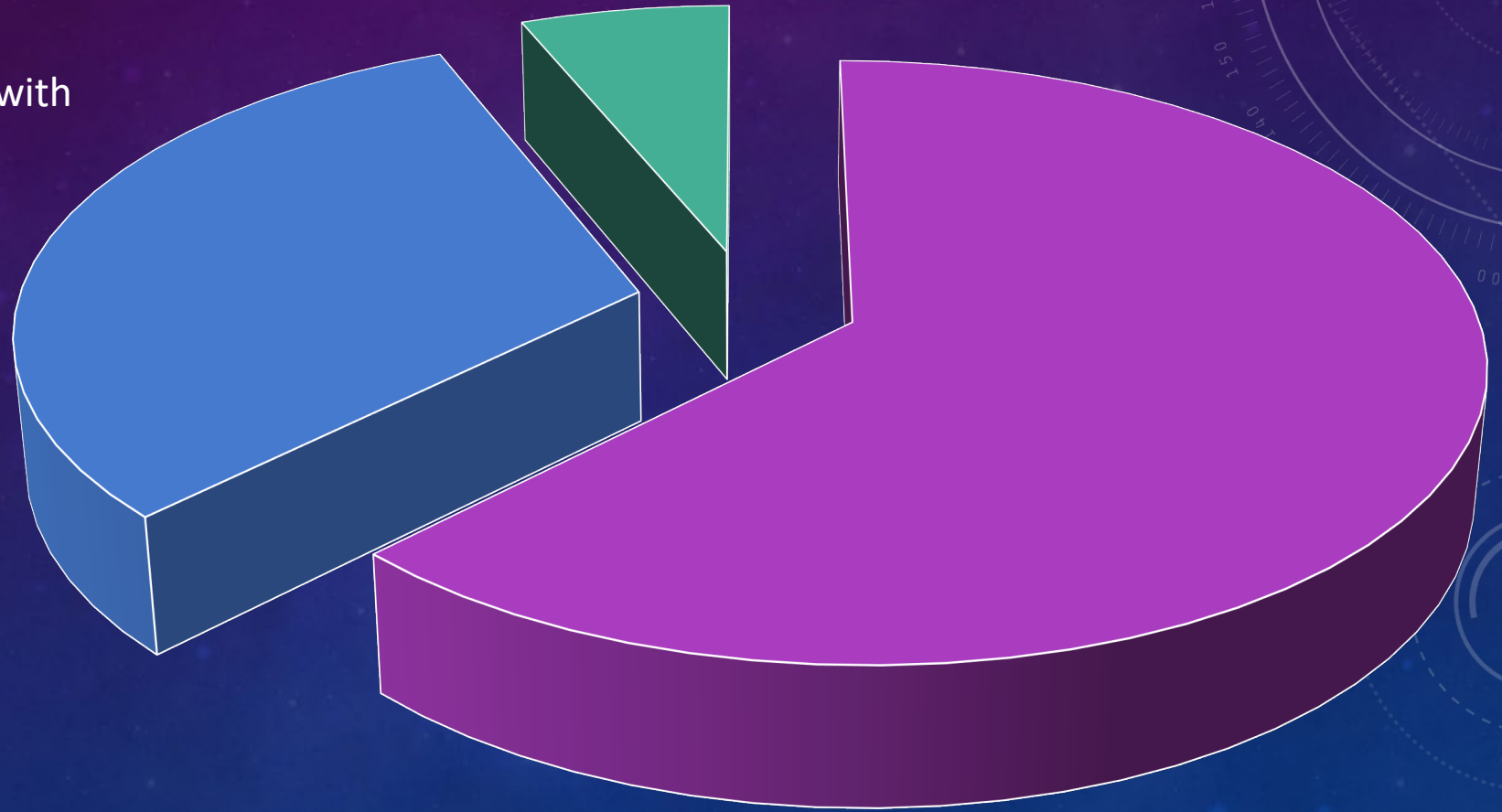
- Strongly agree (6%)
- Agree (31%)
- Neither agree nor disagree (37%)
- Disagree (19%)
- Strongly disagree (6%)



PILOTING RESULTS n=16

I would be happy to practise with dynamic artificial telephone simulation

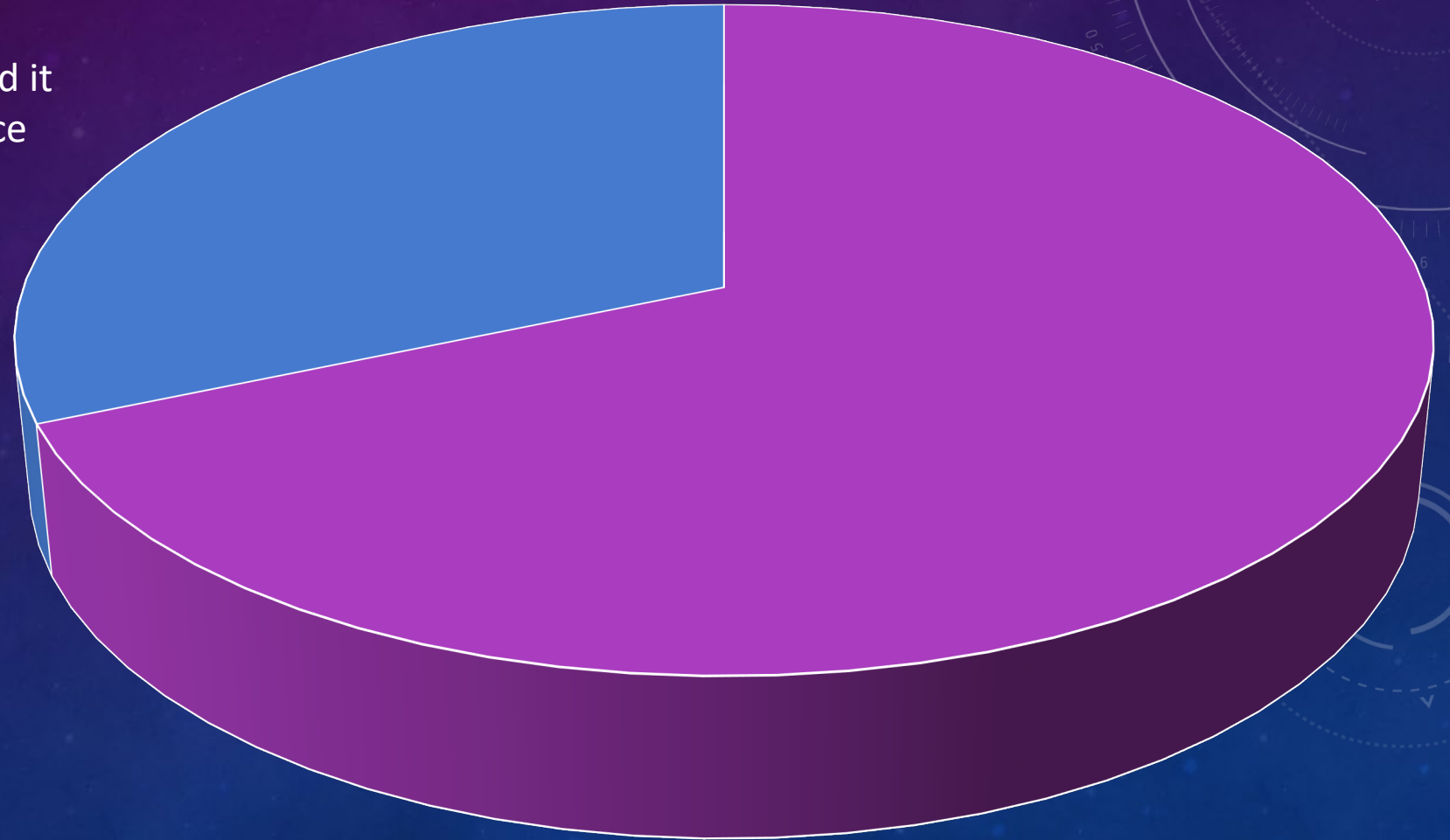
- Strongly agree (63%)
- Agree (31%)
- Disagree (6%)



PILOTING RESULTS n=16

Having tried the prototype, I found it useful for improving my confidence in telephone consulting

- Strongly agree (69%)
- Agree (31%)



PILOTING RESULTS n=16

What worked well?

Very clear and straight forward to use, very relevant and real life practice to help prepare us for exams and the working world. Definitely a tool I'd be very keen to use as soon as possible

Good variety of consultations with responses.

Runs smoothly, feels like a real telephone consultation, able to answer all questions given by clinician

I think the ability to ask them questions is really helpful

It was easy to follow, and mirrored a real telephone consultation

The different medical scenarios which are helpful. You can change the language as well.

Good way of practicing telephone consultation technique. Would be useful as a revision resource. Each patient had a unique tone, and personality which is more in keeping with real life consultations. Multi-lingual processing offers greater accessibility to end users.

It picked up everything well and it was quite difficult encouraging us to ask more questions

It was a very useful tool! It makes you think on the spot just like a real telephone consultation.

Very simple yet effective idea

It was nice to have a patient on the other side

PILOTING RESULTS n=16

What could be improved?

Maybe have a visual AI person so you can see facial expressions and extra things like that

Time delay between questions and AI response could be shortened

Still in development stages but will be great once its completed!

Could give more detail in answers

Maybe the clarity, at the moment- it'll be difficult to have a consultation in a busy environment

Would be good to be able to have any case instead of having to select the system e.g. instead of only respiratory diseases, it could be anything from the matrix

More conditions and be able to use the platform at home

I think it would be good to have feedback at the end of the consultation to see what was missed and to improve next time.

ANY QUESTIONS?

ALEJANDRO PERES CAO

CHANTAL SIMON

