

# **Video Medical Interpretation over IP: A Comparison Study**

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# Rationale

- 47 million residents speak a language other than English at home (2000 Census).
- 1/4 of them do not speak English well or at all.
- Most remote interpretation is by phone.
- Viewing body language and what is happening during an interview/exam has been posited as important to interpretation process.
- Broadband and lower cost make videoconferencing over IP more feasible.

# Medical University of South Carolina



Medical Interpretation

# Research Questions

- **Are perceptions of clinical encounter quality affected by communication method?**
- **Are there differences in patient, provider, and interpreter preferences for communication methods?**
- **Does communication method affect time to provide service and efficiency?**

# Prior Research

- Language discordance leads to poorer care.
- Trained interpreters can bring the level of care close or equal to language concordance.
- Most remote interpretation research is telephonic.
- Most is RSMI versus PCMI (or customary, ad hoc interpretation).
- RSMI research confounds interpretation and communication methods.
- Trained interpretation in person erodes RSMI advantages.
- Remote phone interpretation takes longer.
- No quantitative statistical comparisons of video versus other methods.
- Qualitative research shows preferences for in person and then video.



# The Study

- **Patients quasi randomly assigned to one of three interpretation methods (in person, video, phone) on a weekly rotating basis**
- **Data collected from 240 clinical encounters (80 in each condition)**
- **Patients, providers, and interpreters rated clinical encounter quality and could write comments**
- **A subset of 30 patients (10 per condition) were interviewed as were 23 of 24 participant providers and all 7 participating interpreters**

### Patient Interview Assessment Questionnaire

Encounter Code \_\_\_\_\_ Age \_\_\_\_\_ Gender (circle one) M F

We are assessing the quality of our services to patients who do not speak English and we would appreciate your help. Please take a minute to respond to the statements below. Circle a number 1-5 that best indicates how strongly you disagree or agree with each statement as it relates to the interview with the medical professional that you just had. Think back on the interview that you just had before responding to each statement and feel free to write any comments that you have at the end of this form.

	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
1. I felt at ease talking with the medical professional .....	5	4	3	2	1
2. I felt at ease talking with the interpreter .....	5	4	3	2	1
3. I felt that the medical professional heard and understood me .....	5	4	3	2	1
4. I understood what the medical professional was telling me .....	5	4	3	2	1
5. I felt my privacy was respected.....	5	4	3	2	1
6. I felt the interpreter noticed when I had problems understanding .....	5	4	3	2	1
7. I felt I had opportunities to ask questions .....	5	4	3	2	1
8. I felt the medical professional collected enough information to help me.....	5	4	3	2	1
9. I feel confident that the medical professional understands my problem.....	5	4	3	2	1
10. I feel confident I was given sufficient information about my condition.....	5	4	3	2	1
11. I feel I had enough time with the medical professional .....	5	4	3	2	1
12. I feel overall that my meeting today was satisfactory .....	5	4	3	2	1

13. Have you completed this questionnaire before? Yes No

If yes, how were interpretation services provided you? (Circle one) In person By phone By video

Please write any comments below or on the other side of this form. Thank you for helping.

# Results

## ■ Rating Scale Reliability

Combined = .94; patient = .87; provider = .96; interpreter = .93

## ■ Rating Means

Patient in person = 4.80 video = 4.85 phone = 4.82

Provider in person = 4.90 video = 4.58 phone = 4.58

Interpreter in person = 4.84 video = 4.64 phone = 4.50

## ■ Significant Differences

In person vs videoconference overall = .001; patients = .553; providers = .000; interpreters = .009

In person vs phone overall = .000; patients = .931; providers = .000; interpreters = .000

Videoconference vs phone overall = .360; patients .777; providers = 1.00; interpreters = .083



# Results Con't

- Ratings were high overall
- Patients rated encounters in the different conditions the same
- Providers and interpreters rated in person significantly higher
- Interpreter ratings for video encounters approached significance
- Interview data showed a distinct order of preference for in person and then video over the phone
- Phone interview time was significantly shorter

# Conclusion

- **Results consistent with prior research showing preference for in person and video as a remote method**
- **Shorter time for phone disturbing**
- **Additional research needed with transcripts**
- **Effects of lower bandwidth video need exploration**

# Thank You

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