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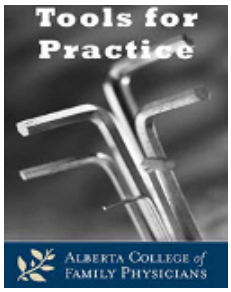

Virtual visits versus face-to-face: Diagnostic accuracy in primary care

Clinical Question: What is the diagnostic accuracy of primary care physicians performing virtual visits compared to in-person visits for undifferentiated presentations?

Bottom Line: Based on limited, lower-level evidence, diagnostic accuracy of virtual visits was between 71-91%, measured using standardized patients or case review at 3 months. Diagnostic accuracy/agreement of virtual care seems similar to in-person visits. These studies do not address continuity of care or patient outcomes.

Evidence:

- Diagnostic cohort, 97 adults, first visit general medicine clinic, in-person followed by videoconference with different physician.[1]
    - Diagnostic accuracy (determined by 3-month chart review) not significantly different between:
        - In-person 83%, videoconference 80%.
            - Most common presentations: respiratory (22%), digestive (19%), circulatory (10%).
            - 57% acute, 43% chronic presentations.
    - Limitations: always assessed in-person first, no long-term follow-up.
- Audit of 599 virtual visits, 67 standardized patients, one of six presentations [ankle pain, viral or bacterial pharyngitis, recurrent urinary tract infection (UTI), rhinosinusitis and low back pain]:[2]
    - Variation in diagnostic accuracy depending on:
        - Presentation (71% for rhinosinusitis, 91% for UTI).
    - No difference diagnostic accuracy with video versus telephone.
    - Limitations: limited single concerns, not real patients.
- Randomized cross-over trial,175 adults in primary-care, randomized to compare videoconference to in-person visits or compare two in-person visits. Both visits were with different physicians.[3]
    - Diagnostic agreement not significantly different between:
        - Videoconference and in-person: 84%.
        - Two different physicians in-person: 80%.
    - Limitations: small numbers, both undifferentiated concerns and chronic diseases.
- Systematic reviews on virtual care report on access, satisfaction, cost, and clinical load, however evidence on diagnostic accuracy is limited.[4,5]

Context:

- Virtual visits defined here as videoconferencing or telephone calls.
- Concerns about virtual visits include difficulty building rapport, risks to follow-up and continuity of care.[6,7]
    - Continuity of care results in lower costs, hospitalizations, and mortality in the long-term.[8,9]
- Diagnostic error is difficult to assess. Observational studies[10] including longer follow-up estimate outpatient diagnostic errors (including missed cancers) occur at a rate of ~5%.
- Most "missed" diagnoses were common conditions in primary care: pneumonia (6.7%), heart failure (5.7%), acute renal failure (5.3%), and cancer (5.3%).[11]

Authors:

Logan Sept, Jessica Kirkwood MD CCFP, Christina Korownyk MD CCFP

Disclosures:

Authors do not have any conflicts of interest to declare.

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