Virtual versus in-person primary care visits

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Clinical question
What is the diagnostic accuracy of virtual compared with in-person visits for undifferentiated presentations?

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

Evidence
• In a diagnostic cohort of 97 adults at their first visit to a general medicine clinic, in-person visits were followed by a videoconference with a different physician.1 -Diagnostic accuracy was not significantly different between in-person visits (83%) and videoconferences (80%). The most common presentations were respiratory (22%), digestive (19%), or circulatory (10%); 57% of presentations were acute and 43% were chronic. -Limitations: all patients were assessed in person first and there was no long-term follow-up.
• In an audit of 599 virtual visits with 67 standardized patients with 1 of 6 presentations (ankle pain, viral or bacterial pharyngitis, recurrent urinary tract infection, rhinosinusitis, and low back pain),2 diagnostic accuracy varied depending on presentation (71% for rhinosinusitis, 91% for urinary tract infection). -There was no difference in diagnostic accuracy with video versus telephone. -Limitations: limited, single concerns; not real patients.
• A primary care crossover trial randomized 175 adults to 1 videoconference and 1 in-person visit or 2 in-person visits. Both visits were with different physicians.3 Diagnostic agreement was not significantly different between groups (84% vs 80%). -Limitations: small numbers; trial included both undifferentiated concerns and chronic diseases.
• Systematic reviews of virtual care reported on access, satisfaction, cost, and clinical load; however, evidence on diagnostic accuracy is limited.4,5

Context
• Concerns about virtual visits include difficulty building rapport and 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 studies10 with longer follow-up estimate a rate of outpatient diagnostic errors of about 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

Implementation
New guidelines for practical implementation of virtual care are slowly appearing. The Canadian Medical Association has developed a playbook of practical ideas and suggestions for the incorporation of virtual visits into daily practice.12 As continuity of care is linked to improved outcomes, virtual care that facilitates continuity should be prioritized over virtual visits with clinicians with whom patients do not have an established relationship.

Competing interests
None declared

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References

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