TELEMEDICINE INTEGRATED WITH ONGOING CLINICAL CARE: Patient-provider email and video-visits

Mary Reed, DrPH
Research Scientist
Kaiser Permanente Division of Research, Oakland, CA
Patient-provider email and video visits can improve patient **access and engagement**

**Access**: Patient access to clinicians and health care
- A 20 minute US doctor’s visits takes 2+ hours for patients
  - Transportation, parking, waiting room, etc.

**Engagement**: Increases in Patient engagement and communication
- High patients interest and satisfaction
- Family members engage as care partners efficiently
- Improve patient-physician relationship
Growing implementation and access

- **Email** - CMS EHR Meaningful Use Incentives
  - Patient-physician secure messages through portal
  - Nearly two-thirds of US physicians exchanged secure messages with patients in 2015

- **Video visits** – Consumer demand
  - Expansion of consumer-focused consultation services
    - Urgent, low-acuity conditions
    - No in-person facilities

Source: Office of the National Coordinator for Health Information Technology, based on 2015 National Electronic Health Record Survey (NEHRS)
Patient-provider email – evidence and gaps

• The evidence - on health care quality:
  • Patients who email with their provider get more/better:
    • Preventive care, chronic conditions care, tests, medications, etc.
  • Complex impact on in-person visits – ↑↓

• The evidence gaps - Access expanding, but:
  • Digital divide in technology access remains
  • Language and other communication barriers
  • Caregivers and family care partners
  • Attaching images – store-and-forward
Figure 2. Patient Use of Secure Message as a First Method of Contact, by Health Concern Type

Among participants with each type of health concern in the past 12 months: was e-mail the first way that you used to contact your healthcare provider?

- Medical tests: 48.2%
- New medication: 38.5%
- New health condition: 31.6%
- Chronic/ongoing condition: 31.2%
- Referral: 24.5%

Percent among all respondents

Percentages reported among participants with each specific type of health concern in the previous 12 months: 39% had a question about a medical test result, 38% had a medication-related question, 48% had a question about a new health condition; 47% had a question about a chronic condition, and 39% had a question about a referral.
**Figure 3.** Impact of Patient-Provider Secure E-mail on Self-Reported Patient Care-Seeking and Overall Health

How did e-mailing your provider(s) affect your overall health in the last 12 months?

- Improved my health: 32.2%
- No change: 67.4%
- Made my health worse: 0.4%

**Percent among respondents who had e-mailed their provider**

How did e-mailing your provider(s) affect the number of times you contacted your provider by phone or the number of office visits you had in the last 12 months?

- Number of office visits:
  - Increased: 2.2%
  - No change: 62.2%
  - Decreased: 35.6%

- Number of phone contacts:
  - Increased: 4.6%
  - No change: 53.4%
  - Decreased: 42.0%

**Percent among respondents who had e-mailed their provider**

Percentages calculated among respondents who reported that they had e-mailed their provider in the last 12 months (79% of all respondents).

*Reed et al., Am J Manag Care. 2015;21(12):e632-e639*
Among 1392 adults with chronic conditions who use the patient portal for their own health care, 383 report also using the patient portal on a family member’s behalf. Fewer than 2% of respondents reported accessing the patient portal for a sibling or a nonfamily member. Through the portal itself, patients could formally set up shared access for care partners who could thereafter use their own care partner login credentials (I use my identification [ID]). Patients also may informally share their own login credentials with care partners (I use their ID).
% of Respondents Who Used the Portal to Send a Secure Message by Characteristic:

Without Adjustment for Internet Access

*Based on weighted

Adjusted % of Respondents Who Used the Portal to Send a Secure Message by Characteristic:
With & Without Adjustment for Internet Access

* p < 0.05, ** p < 0.01, *** p < 0.001; Weighted to source population

Patient-provider video visits – the evidence

• Targeted specialty use-cases:
  • Improve specialty access - rural areas, limited MD availability
  • Often offered in-clinic or complex programs
  • RCTs - Small efficacy studies generally <200 patients

• Third party consumer-initiated telemedicine visits
  • Primarily phone telemedicine visits
  • Widely acceptable/in-demand by patients/employers
  • May not offset in-person care
  • Quality impacts uncertain
Patient-provider video visits – evidence gaps

• The evidence gaps – everything else
  • Primary care – new, ongoing, urgent, follow-up
  • Integration with ongoing health care and providers
  • Quality impacts, health outcomes
  • Impacts on in-person health care services
  • Causality/study design challenges