EHRs, the Physician Experience, & the Road Ahead

Lisa S. Rotenstein, MD, MBA
Assistant Professor & Associate Medical Director
Harvard Medical School & Brigham and Women's Hospital
Outline

1. Why Focus on the Electronic Health Record
2. Evidence to Guide Innovation
3. Identifying & Testing Solutions
Why Focus on the EHR?
Primary care specialists spent the most time on the EHR, and twice the amount of time as surgical specialists.

Source: Rotenstein et al. JAMA IM. 2021; 181(6):863-865
Primary care specialists received 5x as many patient messages, 2x as many team-messages, and 15x as many prescription messages per day.

Source: Rotenstein et al. JAMA IM. 2021; 181(6):863-865
Gender Differences in EHR Time

Comparative Time for Women vs. Men
(additional minutes per 8 scheduled hours)

Additional Evidence

• Experience with technology heavily shaped by local context (i.e. physician vs. non-physician ownership).

• Minimal relationship between EHR time and established measures of ambulatory quality.
Why Does It Matter?

After-hours time on the EHR associated with burnout

Burnout associated with turnover + worse outcomes
Evidence to Guide Innovation
How Physicians Document Influences EHR Time

Source: Rotenstein et al. SGIM 2022 Meeting
Documentation Strategies Vary By Specialty

Source: Rotenstein et al. SGIM 2022 Meeting
Implications

• Some technologies associated with efficiencies, but may not be the right choice for all specialties.

• Need better technologies and workflows for specialties whose value is communicated through detailed reasoning + longer documentation.
Supports Outside the EHR

- Ong et al. explored implementation of virtual scribes in *NEJM Catalyst*. Their key takeaways:
  - Variability in scribe proficiency
  - Some physicians work well with scribes and others don’t
  - “Response” to scribes determines efficiency gains

Source: Ong et al. NEJM Catalyst. 2021; doi.org/10.1056/CAT.21.0294
Identifying & Testing Solutions
Ideal Features

- Easy to Use
- Fits with Existing Workflows
- Sustainable
- Enhances Quality & Satisfaction
Principles for Design & Piloting

1. Involve End User in Design
2. Consider How Tech Fits into Workflows
3. Minimize the Learning Curve
4. Garner Post-Implementatio n Feedback from End Users
Promising Trends

- Tech that Enhances Teams
- Virtual Scribbling
- AI-Powered Messaging Tools
- Ambient Documentation Tools
Thank you!