

Innovation in Electronic Health Records for Oncology Care, Research, and Surveillance

SESSION 6

Policies to Foster EHR Redesign to Advance Progress in Cancer Care, Research, and Surveillance

CO-MODERATORS

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PANELISTS

Representing Session 1: Lawrence Shulman

Representing Session 2: Robin Yabroff

Representing Session 3: Bradley Malin

Representing Session 4: Lara Strawbridge

Representing Session 5: Nicole Dowling

SESSION 1:

Overview of the Use of EHRs in Oncology Care, Research, and Surveillance

Moderators: Mia Levy and Lawrence Shulman

Key Takeaways

- EHRs are a great advance from paper records, and have evolved over the years
- Focus on scheduling, billing, data storage, documentation....and safety has evolved, sometimes good, sometimes not
- Complexity of cancer care and complexity of EHRs that serve matrixed organizations are a combined challenge
- Safety and efficiency should be a focus
- Critical data need to be displayed clearly and unobstructed by less needed data
- Patient centered communication is a foundation for patient empowerment and trust
- There needs to be a triangle of trust – patient – clinician – EHR
- EHRs must support equity of care, not inhibit it
- Language must support equity and avoid stigmatism
- Challenge to bring social determinants of health into EHRs and care
- EHRs are a trove of data – but more data must be entered as standardized and structured data
- Quality and Research are closely linked
- EHRs give a window into real world patient data and we need that badly for many reasons
- Intra-operability is key and needs to be expanded

Recommendations from Session 1 Panelists

- We should re-evaluate and re-conceptualize what the EHR needs to do well for the clinician and for the patient – this should be the primary focus – not what the clinician needs do do for the EHR – billing, etc
- The EHR has the ability to facilitate clinician experience and the patient experience and their interaction, or has the ability to thwart both – we need to evaluate the EHR scientifically in regard to its support or not of these goals
- Quality and safety depend on how the EHR functions and steps need to be taken to better optimize functionality in this regard
- The EHR is a product of continual evolution, and we continually add to it, but it has not “shed” parts and functionality that are no longer necessary – what can we remove?
- Standardized and structured data will facilitate usability, decision support, quality and research
- National “will” should drive adoption of standardized and structured data incorporated into EHR as routine care, as well as enhancements of intra-operability, through regulation and payment incentives/requirements

SESSION 2: Opportunities to Improve Patient-Facing Aspects of EHRs

Moderator: Robin Yabroff

Key Takeaways

- Open notes created challenges and opportunities for providers, patients, and patient-provider communication
 - Documentation burden, timing of information release, and patient worry
 - Opportunities for improving patient-centered care and promoting dialogue
- Integrating Patient Reported Outcomes (PROs) in EHR workflow can inform patient management, population health, quality improvement efforts, and real-world data for research and policy
 - Challenges with reimbursement
 - Opportunities for expansion of key domains and inclusion in payment models
- Patient portals and sharing data across systems
 - CodeX™ / mCODE™ community of practice and standardization opportunities
 - Challenges with portability, computable guidelines and computable clinical trial criteria

Key Takeaways and Recommendations from Session 2 Panelists

- Using the EHR to “Nudge” evidence-based care
 - Consideration of both providers and patient-facing aspects
- Next-generation EHRs
 - Focused efforts to minimize documentation burden and 25X5 initiation use of data science
 - Opportunities for greater patient engagement, life records, and informing
 - “Learning Health Systems”
- Importance of studying EHR use and design elements and ongoing refinement
- Reducing documentation burden and consideration of the “costs” of new alerts/requirements
- Need to ensure equity and develop guardrails to ensure that all patients benefit from innovations

SESSION 3: Opportunities to Optimize the Functionality & Usability of EHRs in Oncology Care

Moderators: Bradley Malin and Alex Melamed

Key Takeaways

- It is possible to formalize cancer management pathways and manage them within EHRs
- Not all information needs to be displayed all of the time... “hover and discover” can support workflows
- Non-routine events will manifest when clinical information systems lack a human-centric design
- The patient journey is more than the pathway documented in the EHR – but this information should be documented
- EHR systems need to consider the dynamic nature of the sociotechnical interplay

Recommendations from Session 3 Panelists

- There is a need for interoperability of cancer pathways across EHR systems
 - Interoperability would benefit from incentive structures
- EHR systems need to support cancer management teams
 - Acknowledge that teams are dynamic and fluid
- Formalize cancer treatment pathways when possible, but allow for personalization
 - Don't forget the “human” in “human centered design”
- Ensure that EHR systems document the information necessary to support learning and refinement of cancer pathways

SESSION 4: Roundtable: Innovative Strategies to Improve EHR Data Collection to Support Care Quality and Research Initiatives

Moderators: Neal Meropol and Lara Strawbridge

Key Takeaways

Current State

- Not sustainable, too burdensome
- Inconsistent completeness and quality of data, with fractured state of care
- Multiple data platforms and multiple data formats; difficulty in exchanging data
- Barriers to sharing data include confidentiality concerns, questions about data ownership

Vision for the Future

- EHRs designed to meet the end goals of comprehensive care and precision medicine
- EHRs that provide all of the necessary functionality in one place
- Standard datasets and natural language processing
- One data input; many uses
- Interoperability
- Patient ownership of data; secondary uses focused on patient benefit

Recommendations from Session 4 Panelists

- Create partnerships with vendors so that EHR capabilities are inclusive
- Conduct usability/feasibility testing for EHRs
- Seek provider-payer partnerships around shared goal of high-quality, efficient care
- Update the Health Insurance Portability and Accountability Act of 1996 (HIPAA) to allow patients to opt in to research
- Build national platforms to leverage the full potential of EHR-based RWD for patient care and research
 - Standard data models
 - Incentivize participation

SESSION 5: The Roles of Federal Agencies to Advance Progress in EHRs

Moderators:

Robert W. Carlson, MD

Nicole F. Dowling, PhD

Key Takeaways

Need to develop systems to extract structured data from unstructured EHR data

- Algorithms
- Linkages to source data
- Checklists, templates
- Standardize Real World Evidence and PROs

Need to enhance abilities of EHRs for communication and collaboration

- Interoperability of data, standards, and networks
- Standardized data sharing
- Aligned clinical decision support and communication

Expand use and requirements of Certified EHRs

- Interoperability, including between provider and patient
- Increasingly required for reimbursement programs/models
- Include PROs

Recommendations from Session 5 Panelists

- Prioritize coordination across agencies and with STLTs, industry, academia (OSTP, ONC)
- Prioritize improved collection of the *right* information through the EHR (SDOH, shared decision making)
- Continue improvements in interoperability, standardization, accessibility
 - Improve decision-making, patient care, outcomes, efficiencies
- Pursue innovation in clinical decision support
 - Hardwire complex cancer screening guidelines into EHRs
 - Potential to improve care and cancer screening uptake, equitable health outcomes, surveillance, research
- Prioritize opportunities for cancer registries and surveillance
 - Specifically target EHR components
 - Improve extraction of structured data, ability to track complex procedures
 - Further leverage and develop linkages for source data for surveillance (complete, accurate, up-to-date data)