

NCCN Artificial Intelligence in Cancer Care

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My Take-A-Ways with the “Cone of Uncertainty”

Artificial Intelligence technology is moving fast. It's at our doorstep and the impact on the workforce will become more apparent. For AI to advance there needs to be regulations and support from multi- interdisciplinary connections regarding governing in regards to federal, state, medical boards, physicians, clinicians, institutions, technical-machine learning and outside organizations that are affected. A balance of regulations (holding back) and taking risks will need to be considered.

Across all venues, society is anxious and trust is the main concern. As real as it may appear, AI can never take the place of human connection. Transparency will be vital for this technology to advance.

AI Today:

- Chat GPT, Chatbots, Siri, Alexa, Social Media Algorithms, Navigation tools, Digital Assistants are just a few Artificial Intelligence tools that we are utilizing today.

Challenges and Concerns with Healthcare:

- AI needs to be allowed more freedom to advance, how much freedom do we allow?
- Adapting AI platforms through data adjustments and growth.
- Risk management - Low to High will need to be discussed and closely monitored.
- Ethical and Moral - Will AI become more powerful than human support?
- Physicians will need to interact with more informed patients and discussions between the doctor and patient will be more extensive which may cause more pressure on doctors.
- Algorithmic Drift- aka-Hallucinations “making stuff up” - Inaccuracies
- Who has access to the data?
- Patient consent and disclosures in regards to patient privacy.

- Will patients question whether they are communicating with a bot or a living human and how will this be validated?
- The uncertainties with providers and institutions as they move to a model of AI making decisions on their behalf and who will take on the liabilities?

Future with Healthcare:

- Artificial General Intelligence will be capable of taking over tasks that normally require human involvement.
- When will AI be asking us for the necessary information?
- Will AI be capable of taking over entire corporations and institutions?
- How will payers reimburse for AI services? Reimbursement models need to be in this discussion as we move forward.
- Will AI physicians become a reality? Does society want this to be integrated into our healthcare? How will AI meet compassion needs, bedside manner, support our medical histories, treatments etc.

Positives with Healthcare:

- Reducing workloads on providers and clinician's.
- Reducing clerical work in multiple areas with email, phone calls, messaging are already mainstream and will be more utilized and expanded.
- Faster innovation cycles.
- Precision Medicine, drug design and development will have more support from the data this technology can provide.
- AI will support physicians navigate patients from diagnosis to precision treatments including clinical trials. Patients will be linked to clinical trials quicker. Equity will be common and patients will be empowered with more information. Taking "Dr. Google" to a whole nother level!
- Home healthcare and telemedicine will be more common as doctors will be able to help patients stay local for their healthcare and treatment needs.
- "Prevention is the new cure" Proactive vs Reactive- monitoring ourselves and our behaviours encouraging healthier lifestyles through monitoring devices such as healthcare watches and health monitoring rings.

Will society and our healthcare industry embrace this new technology and consider sidelining medical journals, conferences, and sharing information on a more personal level to allow computers to lead and become the decision makers? I'm not so sure that the lack of human connection can ever be replaced and this is most likely the biggest topic that is at our doorstep of healthcare today.