Will AI make a better doctor?
Humans are not particularly good at:

A) Quantifying complex (and even simple) patterns
B) Assessing change in complex scenes
C) Drawing decisions in more than 3-4 dimensions

These are reasons for building human-computer teams.
Learn, conceptualize, understand, apply logic, plan, solve problems, communicate, etc.

True intelligence requires a self awareness, understanding, and creativity which no software has achieved.
Software in medical use

- Scheduling, registration and demographics
- Billing
- Medical Record Keeping - pt, hosp, office
- Communication between providers
- Test ordering and tracking
- Drug ordering and tracking
- Management and analytics - staff, equipment, processes
- Image storage and retrieval, post processing and analysis
Imaging Software in common use today

Conversion from analogue to digital

- Visualization - 2D, 3D, 4D
- Quantification/Measurement - 2D, 3D, 4D
- Segmentation
- Modeling
- Computer Aided Detection (CADe)
- Computer Aided Analysis (CADx)
- Computer Aided Triage (CADt)
Software requirements

• Necessary

• Feasible and at reasonable cost

• Accurate, Reproducible, Reliable

• Complete

• Fast and integrates with the user’s requirements

• Traceable and Modifiable
Humans and computers together solve a problem
In 2015, the results of five trials from different countries were published in the New England Journal of Medicine, demonstrating the safety and efficacy of mechanical thrombectomy with stent-retriever in improving outcomes and reducing mortality for patients who present within 6 hours from their time last known well. It is now a widespread procedure performed in most primary, thrombectomy capable, or comprehensive stroke centers across the globe.

In 2018, the DAWN and DEFUSE-3 trails were published. These trials showed that mechanical thrombectomy is a safe and effective treatment for individuals who have an acute ischemic stroke out to 24 hours of symptom onset.
93 yom presents with acute onset right hemiparesis
CTA

AI Left M1 Occlusion
Left M1 Occlusion confirmed
Thrombectomy
Solitaire and Penumbra
Recommendations

• Encourage the vendors to solve real clinical issues rather than look for the quick way to sell and only go for the low hanging fruit.

• Establish a National AI Registry with unbiased peer review

• Separate the hype from the facts in real life use