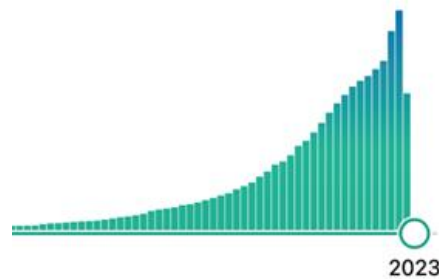


PS6. Patient benefit from risk assessment models and tools

Organised by Mads Nielsen (University of Copenhagen), Sisse Rye Ostrowski (Rigshospitalet/University of Copenhagen) and Deirdre Fenton (Aarhus University)

Session overview

Models for risk of disease, benefit from treatment, risk of outcome, among others, are increasingly published. As data are being assessable in terms of genetics, proteomics, metabolomics, radiomics, etc., we constantly gain more insight into the underlying biology and produce new models. With the use of machine learning, the models created become more complex, less transparent, and harder to validate. These are some of the reasons for modern risk modelling not being transferred at a high rate into the clinic for patient benefit. This workshop will concentrate on the modern risk model's translation into the clinic through proper validation and quality assurance. The workshop will show examples from medicine and discuss the proper procedures for ensuring sufficient model quality to benefit patients.



Pubmed search on risk with more than 3,000,000 entries and rapidly increasing

Speakers

- Carsten Utoft Niemann, Rigshospitalet and University of Copenhagen
- Charles Vesteghem, Department of Hematology, Aalborg University Hospital
- Jakob Skou Pedersen, Bioinformatics Research Centre, Aarhus University, and Department of Molecular Medicine, Skejby Hospital
- Franci Susanne Johansen, Center for It og Medicoteknologi, Region Hovedstaden

Programme

Each talk will have a duration of 15 minutes and will be followed by a 5 min Q&A:

- **Carsten Utoft Niemann:** Practical example of implementing risk assessment models into Electronic Health Record systems and clinical trials.
 - Focus: Full life cycle of mAI, including implementation into different EHRs and surveillance of performance/clinical benefit

- **Charles Vesteghem:** Clinical utility and implementation of machine learning methods for dynamic risk prediction in medicine
 - Focus: Estimation of clinical utility and clinical implementation
- **Jakob Skou Pedersen:** Machine learning in cancer genomics: from scientific insights to clinical applications
 - Focus: Use of machine learning on large cancer genomics data sets to understand cancer evolution and develop diagnostic tools.
- **Franci Susanne Johansen:** An IT-department expectations on how to include AI algorithms in the application portfolio, for the benefit of the patient
 - Focus: Up till now the focus of the IT-departments at hospitals, have been on availability, confidentiality and integrity for applications. That is not sufficient when we introduce AI-algorithms. So can any of the existing test- and risk paradigms be used on machine learning / AI? Is it a challenge to be solved by technology / IT or the medical practice? IT-departments will demand compliance with the EU Medical Device regulation (that takes time), so is that for the benefit of the patient?
- 20 min panel discussion