Prediction of contralateral breast cancer: statistical aspects and prediction performance

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Stellingen behorend bij proefschrift getiteld

Prediction of contralateral breast cancer
Statistical aspects and performance assessment

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1. Decision-making about preventive strategies for contralateral breast cancer in clinical practice is unlikely to improve without genetic information (this thesis).
2. External validation is essential to assess the performance of prediction models (this thesis).
3. To guide clinical decision making more information is needed to differentiate contralateral breast cancer risks among patients diagnosed with ductal carcinoma in situ (this thesis).
4. There are still opportunities to improve the current contralateral breast cancer risk prediction performances and the corresponding clinical utility (this thesis).
5. Clinical utility of a prediction model is beyond discrimination and calibration performances.
6. When prediction models are used to support decision making, there is often a need for predicting outcomes under hypothetical interventions (Lin et al., BMC, 2021).
7. Through an alliance between information technology and statistics, clinical prediction can be progressed to a continual service that minimizes the data-action latency in preventative medicine (Jenkins et al., BMC, 2021).
8. The practical relevance of machine and deep learning methods for risk prediction needs to be further investigated based on more rigorous methodologies.
9. Prediction is hard especially about the future (Donovan et al., Critical Care Medicine, 2011)
10. Only uncertainty is a sure thing, certainty is an illusion (Simpkin et al., NEJM, 2016)