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Personalised medicine of fluoropyrimidines using DPYD pharmacogenetics

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Stellingen

behorende bij het proefschrift

Personalised medicine of fluoropyrimidines using *DPYD* pharmacogenetics

1. A randomised clinical trial is not required to provide sufficient evidence for the clinical utility of pharmacogenetics. *This thesis (chapter 2)*
2. *DPYD* genotyping is essential and must be performed in all patients prior to initiating systemic treatment with fluoropyrimidines. *This thesis (chapter 4)*
3. Fluoropyrimidine dose reductions need to be applied in *DPYD* variant allele carriers starting chemoradiation therapy, despite the different fluoropyrimidine dose and different setting of the chemoradiotherapy. *This thesis (chapter 7)*
4. Prospective *DPYD* screening can be implemented successfully in a real-world clinical setting, is well accepted by physicians and results in lower toxicity. *This thesis (chapter 8)*
5. In order to align patient care, guidelines of health care regulators need to be readily available. *This thesis (discussion)*
6. While additional genetic factors or phenotyping approaches may complement pharmacogenetic testing in the future, *DPYD* genotyping is available today and identifies patients at increased risk of severe adverse effects from fluoropyrimidine-based therapies. *adj. Hamzic et al. Pharmacogenomics 2018;19(8):689-692.*
7. *DPYD* genotyping provides a leading example of how prospective pharmacogenetic testing results in benefits for patients by reducing morbidity and mortality associated with adverse drug effects. *adj. Amstutz and Largiadèr, Lancet Oncol, 2018;19(11):1421-1422.*
8. The lack of reimbursement of *DPYD* genotyping costs by health care insurances in the Netherlands results in differences between hospitals in the implementation of *DPYD* genotyping, and thus quality of health care between patients.
9. Forewarned is forearmed.
10. Without data, you are just another person with an opinion. One can ignore an opinion, but not data. *adj. W. Edwards Deming (1900-1993)*
11. Everybody can be considered a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid. *adj. Albert Einstein (1879-1955)*

Carin Lunenburg
Leiden, June 11th 2019