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## Exploring new PET/CT capabilities and machine learning for improving the diagnosis of infective endocarditis

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Stellingen behorende bij het proefschrift

**Exploring new PET/CT capabilities and machine learning  
for improving the diagnosis of infective endocarditis**

Derk ten Hove

1. Standardization of [<sup>18</sup>F]FDG-PET/CT procedures is essential for reproducible evaluation of endocarditis, and needs to be improved further. [This thesis, chapter 2]
2. Using cardiac motion correction techniques improve interpretability of [<sup>18</sup>F]FDG PET/CT for suspected endocarditis. These initial results are promising and warrant further investigation. – [This thesis, chapter 3]
3. Increased mediastinal lymph node activity is a non-specific finding and cannot be used as a predictor for the presence of prosthetic valve endocarditis. [This thesis, chapter 4]
4. [<sup>18</sup>F]FDG-PET/CT is a valuable diagnostic tool for the evaluation of suspected LVAD infections with high sensitivity and high, albeit variable, specificity. [This thesis, chapter 5]
5. Semiquantitative analysis effectively distinguishes between inflammation and infection of LVAD infections and should be considered as an adjunct to visual analysis, especially when findings adjacent to central device components are equivocal. [This thesis, chapter 6]
6. Machine learning is a powerful tool to help us evaluate the presence of infective endocarditis, but we should be very careful with what exactly we train our models to predict. [This thesis, chapter 7]
7. While we work on developing exciting new diagnostic tools, we should not forget to optimize the tools already available to us. [This thesis, chapter 8]
8. And now here is my secret, a very simple secret: It is only with the heart that one can see rightly; what is essential is invisible to the eye. [Antoine de Saint-Exupéry, *The little prince*]
9. Life before death, strength before weakness, journey before destination. [*Brandon Sanderson, The way of Kings*]
10. As medical professionals and human beings we are like an umbrella, made out of many pieces of fabric. If we don't stay connected, we leave ourselves with holes and the ones that depend on us in the rain. [Personal communications]
11. Home isn't a place. It's the people in it. And they'll always be with you. [*Henry, from the Series "Once upon a time"*]