Cancer and thrombosis
van Es, N.

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
improvements in strategies for prediction, diagnosis, and treatment
CANCER AND THROMBOSIS: IMPROVEMENTS IN STRATEGIES FOR PREDICTION, DIAGNOSIS, AND TREATMENT

Nick van Es
CANCER AND THROMBOSIS: 
IMPROVEMENTS IN STRATEGIES FOR 
PREDICTION, DIAGNOSIS, AND TREATMENT

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor
aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus
prof. dr. ir. K.I.J. Maex
ten overstaan van een door het College voor Promoties ingestelde commissie,
in het openbaar te verdedigen in de Agnietenkapel
op vrijdag 17 november 2017, te 14.00 uur

door
Nick van Es
geboren te Naarden
PROMOTIECOMMISSIE

Promotores  prof. dr. S. Middeldorp  AMC-UvA
prof. dr. P.M.M. Bossuyt  AMC-UvA

Copromotores  prof. dr. H.R. Büller  AMC-UvA
dr. M. Di Nisio  Università degli studi Gabriele
d'Annunzio di Chieti

Overige leden:  prof. dr. D.P.M. Brandjes  AMC-UvA
prof. dr. S.C. Cannegieter  LUMC
prof. dr. F.W.G. Leebeek  Erasmus MC Rotterdam
dr. J.M.M.B. Otten  Slotervaartziekenhuis, Amsterdam
prof. dr. R.J.G. Peters  AMC-UvA
prof. dr. H.C.P.M. van Weert  AMC-UvA

Faculteit der geneeskunde
PROMOTIECOMMISSIE

Promotores

prof. dr. S. Middeldorp   AMC‐UvA
prof. dr. P.M.M. Bossuyt   AMC‐UvA

Copromotores

prof. dr. H.R. Büller   AMC‐UvA
dr. M. Di Nisio   Università degli studi Gabriele d'Annunzio di Chieti

Overige leden:

prof. dr. D.P.M. Brandjes   AMC‐UvA
prof. dr. S.C. Cannegieter   LUMC
prof. dr. F.W.G. Leebeek   Erasmus MC Rotterdam
dr. J.M.M.B. Otten   Slotervaartziekenhuis, Amsterdam
prof. dr. R.J.G. Peters   AMC‐UvA
prof. dr. H.C.P.M. van Weert   AMC‐UvA

Faculteit der geneeskunde
## CONTENTS

**CHAPTER 1**  
General introduction and outline  

**CHAPTER 2**  
Deep vein thrombosis and pulmonary embolism  

**PART I**  
Improvements in strategies for prediction  

**CHAPTER 3**  
Comparison of risk prediction scores for venous thromboembolism in cancer patients: a prospective cohort study  

**CHAPTER 4**  
The Khorana score for the prediction of venous thromboembolism in patients with pancreatic cancer: a retrospective cohort study  

**CHAPTER 5**  
The Khorana score for the prediction of venous thromboembolism in patients with solid cancer: an individual patient data meta-analysis  

**CHAPTER 6**  
Extracellular vesicles exposing tissue factor for the prediction of venous thromboembolism in patients with cancer: a prospective cohort study  

**CHAPTER 7**  
Risk prediction for venous thromboembolism in patients with solid cancer: derivation and validation of a clinical prediction model  

**PART II**  
Improvements in strategies for diagnosis  

**CHAPTER 8**  
Wells rule and D-dimer testing to rule out pulmonary embolism: a systematic review and individual patient data meta-analysis  

**CHAPTER 9**  
The original and simplified Wells rules and age-adjusted D-dimer testing to rule out pulmonary embolism: an individual patient data meta-analysis  

**CHAPTER 10**  
Screening for occult cancer screening in patients with unprovoked venous thromboembolism: a systematic review and individual patient data meta-analysis
<table>
<thead>
<tr>
<th>Part III</th>
<th>Improvements in strategies for treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHAPTER 11</strong></td>
<td>Direct oral anticoagulants compared with vitamin K antagonists for acute symptomatic venous thromboembolism: clinical evidence from phase 3 trials</td>
</tr>
<tr>
<td><strong>CHAPTER 12</strong></td>
<td>Edoxaban for venous thromboembolism in patients with cancer: results from a non-inferiority subgroup analysis of the Hokusai-VTE randomised, double-blind, double-dummy trial</td>
</tr>
<tr>
<td><strong>CHAPTER 13</strong></td>
<td>Edoxaban for treatment of venous thromboembolism in patients with cancer: rationale and design of the Hokusai VTE-cancer study</td>
</tr>
<tr>
<td><strong>CHAPTER 14</strong></td>
<td>Summary and perspectives</td>
</tr>
<tr>
<td><strong>APPENDICES</strong></td>
<td>Nederlandse samenvatting</td>
</tr>
<tr>
<td></td>
<td>List of peer-reviewed publications</td>
</tr>
<tr>
<td></td>
<td>Authors and affiliations</td>
</tr>
<tr>
<td></td>
<td>Portfolio</td>
</tr>
<tr>
<td></td>
<td>Dankwoord</td>
</tr>
<tr>
<td></td>
<td>About the author</td>
</tr>
</tbody>
</table>