

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/29317> holds various files of this Leiden University dissertation.

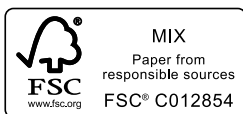
**Author:** Nes, Johanna Gerarda Hendrica van

**Title:** Clinical aspects of endocrine therapy of early breast cancer in postmenopausal women

**Issue Date:** 2014-10-21

**Clinical aspects of endocrine therapy  
of early breast cancer in postmenopausal women**

Cover: Zen Dog, Edward Monkton (printed with permission)  
Lay-out en print: Gildeprint - [www.gildeprint.nl](http://www.gildeprint.nl)  
ISBN: 978-90-9028452-1



© J.G.H. van Nes, 2014

All rights reserved. No part of this thesis may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without permission of the author or, when appropriate, of the publishers of the published articles.

Printing of this thesis was financially supported by ABN Amro, AMGEN B.V., Astellas Pharma B.V., Chipsoft, Elekta B.V., Mundipharma Pharmaceuticals B.V., Novartis Oncology, Pfizer, Radiotherapeutisch Instituut Friesland, Roche, Universiteit Leiden and ZEISS.

**Clinical aspects of endocrine therapy  
of early breast cancer in postmenopausal women**

**Proefschrift**

ter verkrijging van  
de graad van Doctor aan de Universiteit Leiden,  
op gezag van Rector Magnificus prof. mr. C.J.J.M. Stolker,  
volgens besluit van het College voor Promoties  
te verdedigen op 21 oktober 2014  
klokke 13.45 uur

door

**Johanna Gerarda Hendrica van Nes**

geboren te Groningen  
in 1977.

## Promotiecommissie

Promotoren	Prof. dr. C.J.H. van de Velde Prof. dr. J.W.R. Nortier
Co-promotor	Mw. dr. C. Seynaeve (Erasmus MC Kanker Instituut)
Overige leden	Prof. dr. V.T.H.B.M. Smit Mw. Prof. dr. A.M. Stiggelbout Mw. Prof. dr. E. van der Wall (Universitair Medisch Centrum Utrecht)

The research described in this thesis was conducted at the department of Surgical Oncology of the Leiden University Medical Centre, the Netherlands, and at the Endocrine Cancer Group of the Cancer Research Center in the Western General Hospital, Edinburgh, United Kingdom. The research in Edinburgh was facilitated thanks to grants by the Dutch Surgical Foundation "Stichting Prof. Michaël-van Vloten Fonds", by the Dutch Foundation "De Drie Lichten" and by an unrestricted educational research grant of Pfizer UK.

## **ZEN DOG**

**He knows not where he's going  
For the ocean will decide -  
It's not the DESTINATION...**

**...It's the glory of THE RIDE**



## Table of contents

<b>Chapter 1</b>	General introduction and outline of this thesis.	9
<b>PART I Patterns of care</b>		
<b>Chapter 2</b>	Variations in locoregional therapy in postmenopausal patients with early breast cancer treated in different countries.	17
<b>Chapter 3</b>	Patterns of care in Dutch postmenopausal patients with hormone-sensitive early breast cancer participating in the Tamoxifen Exemestane Adjuvant Multinational (TEAM) trial.	29
<b>PART II Aspects of endocrine therapy</b>		
<b>Chapter 4</b>	Switching from tamoxifen to aromatase inhibitors for adjuvant endocrine therapy in postmenopausal patients with early breast cancer.	43
<b>Chapter 5</b>	The effect of exemestane and tamoxifen on bone health within the Tamoxifen Exemestane Adjuvant Multinational (TEAM) trial: a meta-analysis of the US, German, Netherlands, and Belgium sub-studies.	59
<b>Chapter 6</b>	Minimal impact of adjuvant exemestane or tamoxifen treatment on mammographic breast density in postmenopausal breast cancer patients: a Dutch TEAM trial analysis.	73
<b>Chapter 7</b>	Quality of life in relation to tamoxifen or exemestane treatment in postmenopausal breast cancer patients: a Tamoxifen Exemestane Adjuvant Multinational (TEAM) Trial side study.	85
<b>Chapter 8</b>	Maintenance of physical activity and body weight in relation to subsequent quality of life in postmenopausal breast cancer patients.	97
<b>PART III Biomarkers for prognosis</b>		
<b>Chapter 9</b>	COX2 expression in prognosis and in prediction to endocrine therapy in early breast cancer patients.	109
<b>Chapter 10</b>	Co-expression of SNAIL and TWIST determines prognosis in estrogen receptor-positive early breast cancer patients.	125
<b>Chapter 11</b>	General Discussion	141
	Summary	147
	Nederlandse samenvatting	149
<b>Chapter 12</b>	List of publications	155
	Dankwoord	157
	Curriculum Vitae	159

