



Universiteit
Leiden
The Netherlands

Diagnostics in patients presenting to the emergency room with headache

Alons, I.M.E.

Citation

Alons, I. M. E. (2018, June 28). *Diagnostics in patients presenting to the emergency room with headache*. Retrieved from <https://hdl.handle.net/1887/63239>

Version: Not Applicable (or Unknown)

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/63239>

Note: To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/63239> holds various files of this Leiden University dissertation.

Author: Alons, I.M.E.

Title: Diagnostics in patients presenting to the emergency room with headache

Issue Date: 2018-06-28

**DIAGNOSTICS IN
PATIENTS PRESENTING
TO THE EMERGENCY
ROOM WITH HEADACHE**

I.M.E. ALONS

Colofon

Diagnostics in patients presenting to the emergency room with headache

ISBN: 000-00-0000000-0

Copyright © 2018 I.M.E. Alons

All rights reserved. No part of this thesis may be reproduced, stored or transmitted in any way or by any means without the prior permission of the author, or when applicable, of the publishers of the scientific papers.

Cover design and lay-out and design by Joska Sesink, persoonlijkproefschrift.nl

Printed by Ipskamp Printing, proefschriften.net

Financial support was obtained from “Wetenschapsbureau Haaglanden MC” for printing of the thesis.

DIAGNOSTICS IN PATIENTS PRESENTING TO THE EMERGENCY ROOM WITH HEADACHE

Proefschrift

Ter verkrijging van de graad van doctor aan de Universiteit Leiden,
op gezag van de rector magnificus prof. dr. C.J.J.M. Stolker,
volgens het besluit van het college voor promoties

Te verdedigen op 28 juni 2018

Klokke 15:00

door

Imanda Maria Elisabeth Alons

Geboren te Amsterdam in 1983

Promotores

Prof A. Algra, Klinisch epidemioloog, LUMC

Prof. M.J.H. Wermer, Neuroloog, LUMC

Co-promotor

Dr. K. Jellema, Neuroloog, Haaglanden MC

Promotie commissie

Prof. Y.B.W.E.M. Roos, Neuroloog, AMC

Prof. M.J.B. Taphoorn, Neuroloog, LUMC

Dr. Y.M. Ruigrok, Neuroloog, UMCU

Dr. M.A.A. Walderveen, Radioloog, LUMC

CONTENTS

Chapter 1	Introduction	7
Chapter 2	The value of CT angiography in patients with acute severe headache <i>Acta Neurol Scand 2015; 131:164-8</i>	15
Chapter 3	Yield of CT angiography in patients with acute headache, normal neurological examination and normal non-contrast CT: a meta-analysis <i>Accepted for publication in Journal of Stroke and Cerebrovascular disease, dec 2017</i>	27
Chapter 4	Prediction of abnormalities at CT angiography in patients with acute headache <i>Accepted for publication in Brain and Behavior, april 2018</i>	43
Chapter 5	Optimizing blood pigment analysis in cerebrospinal fluid for the diagnosis of subarachnoid hemorrhage-a practical approach <i>Eur. J. Neurol 2013;20:193-7</i>	55
Chapter 6	Procalcitonin in cerebrospinal fluid in meningitis; a prospective diagnostic study. <i>Brain Behav. 2016 16;6(11)</i>	65
Chapter 7	D-dimer for the exclusion of cerebral venous thrombosis: a meta-analysis of low risk patients with isolated headache. <i>BMC Neurology 2015; 15:118</i>	81
Chapter 8	General discussion and final conclusions	97
	English summary	108
	Nederlandse samenvatting	111
	Dankwoord	114
	Curriculum Vitae	116
	Lijst van publicaties	117