



Universiteit  
Leiden  
The Netherlands

## Comparative effectiveness of surgery for traumatic acute subdural hematoma

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### Citation

Essen, T. A. van. (2023, June 8). *Comparative effectiveness of surgery for traumatic acute subdural hematoma*. Retrieved from <https://hdl.handle.net/1887/3619981>

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

## ACKNOWLEDGMENTS (DANKWOORD)

Allereerst bedank ik graag alle patiënten die vrijwillig hebben deelgenomen aan de Net-QuRe en CENTER-TBI studies. Verder bedank ik ook graag de volgende personen:

Mijn promotoren Wilco Peul, Hester Lingsma en co-promotor Godard de Ruiter.

Mijn collega onderzoekers

Hugo den Boogert, Iris Ceyisakar, Maryse Cnossen, Véronique De Keyser, Bart Depreitere, Jeroen van Dijck, Inge van Erp, Willemijn van Erp, Iain Haitsma, Majanka Heijenbrok-Kal, Peter Hutchinson, Bram Jacobs, Mathieu van der Jagt, Angelos Koliass, Andrew Maas, Geoff Manley, Amy Markowitz, David Menon, Jan Paul Muizelaar, Joukje van der Naalt, Daan Nieboer, Lianne Peppel, Dana Pisciă, Lodwijk Res, Gerard Ribbers, Jan Schoones, Guus Schoonman, Ranjit Singh, Ewout Steyerberg, Victor Volovici, Robert Walchenbach, Eveline Wieggers, Alexander Younsi, John Yue.

Beste (reserve-)paranimfen en vrienden

Liron Duraku

Marnix Guijt

Victor Harmse

*De Trauma Intervention Prognostic Study Group*

J. Blom-De Vreugd, M. de Gooijer-Van Zwieten, E. Knijnenberg, M. Nuyten, J. Videler-Pitlo, M. de Raaf, L. Smakman, en R. van Schaik-Dassen (manager).

Mijn collega's van de Klinische Epidemiologie, Leids Universitair Medisch Centrum Suzanne Cannegieter, Ton de Craen †, Olaf Dekkers, Tamara Wienen-Groen, Banne Németh, Frits Rosendaal, Yvonne Souverein.

Assistenten en staf van het Universitair Neurochirurgisch Centrum Holland, Leids Universitair Medisch Centrum, Haaglanden Medisch Centrum en HAGA ziekenhuis.

Mijn familie

Atie, Bernard, Lous, Ank, Henk, Tia, Iris, Merle, Renée, Niek, José, Rien en mijn ouders.

Floris, Philip en Chrisje



## LIST OF PUBLICATIONS

\* Publications for this thesis

### PEER-REVIEWED ARTICLES

Yue JK, Yuh EL, .., **Van Essen TA**, et al. Isolated Traumatic Subarachnoid Hemorrhage on Initial Head CT May Not Be Isolated: A TRACK-TBI Study.  
*Submitted*

Pisică D, Volovici V, .., **Van Essen TA**, et al. Clinical and Imaging Characteristics, Care Pathways and Outcomes of Traumatic Epidural Hematomas: A CENTER-TBI Study  
*Submitted*

Yue JK, Lee YM, .., **Van Essen TA**, et al. Performance of the IMPACT and CRASH Prognostic Models for Traumatic Brain Injury in a Contemporary Multicenter Cohort: A TRACK-TBI Study  
*Submitted*

Van Erp IAM, **Van Essen TA**, Kompanje EJO, et al. Treatment-limiting decisions for traumatic brain injury in The Netherlands  
*Under review*

Riemann L, Mikolic A, .., **Van Essen TA**, et al. Computed Tomography Lesions and Their Association with Global Outcome in Young People with Mild Traumatic Brain Injury.  
*J Neurotrauma. 2023 Feb 24.*

Adegeest CY, Van der Gaag NA, **Van Essen TA**, Ter Wengel PV. Neurochirurgische dilemma's bij secundaire neurologische achteruitgang na spinale schotwondingen  
*Submitted*

Yue JK, Krishnan N, .., **Van Essen TA**, et al. Neuroworsening in the Emergency Department is a Predictor of Traumatic Brain Injury Intervention and Outcome: A TRACK-TBI Pilot Study  
*J Clin Med. 2023 Mar 3;12(5):2024.*

Yue JK, Kobeissy FH, .., **Van Essen TA**, et al. Neuroinflammatory Biomarkers for Traumatic Brain Injury Diagnosis and Prognosis: A TRACK-TBI Pilot Study  
*Neurotrauma Rep. 2023 Mar 24;4(1):171-183.*

\* **Van Essen TA**, Lingsma HF, Steyerberg EW, et al. Acute subdural hematoma: answering the clinically relevant question  
*The Lancet Neurol.* 2022 Dec;21(12):1080-1081.

Maas AIR, Menon DK, ..., **Van Essen TA**, et al. Traumatic brain injury: progress and challenges in prevention, clinical care, and research.  
*The Lancet Neurol.* 2022. Nov;21(11):1004-1060.

Singh RD, **Van Essen TA**, Kloet A. Het (sub)acuut subduraal hematoom en het lucide interval.  
*Submitted*

Vreeburg RJG, Singh RD, et al, **Van Essen TA**. The optimal timing of cranioplasty following decompressive craniectomy in traumatic brain injury: A prospective multicenter observational study within CENTER-TBI and NeT-QuRe.  
*Submitted*

**Van Essen TA**,<sup>†</sup> Van Erp IAM,<sup>†</sup> Lingsma HF, et al. Early Surgery versus Conservative Treatment in Patients with Traumatic Intracerebral Hematoma: a CENTER-TBI study.  
*Under review*  
<sup>†</sup> *Equal contribution*

Howe EI, Zeldovich M, ..., **Van Essen TA**, et al. Rehabilitation and outcomes after complicated vs uncomplicated mild TBI: results from the CENTER-TBI study.  
*BMC Health Serv Res.* 2022 Dec 16;22(1):1536.

\* **Van Essen TA**, Van Erp IAM, Lingsma HF, et al. Comparative Effectiveness of Decompressive Craniectomy versus Craniotomy for Traumatic Acute Subdural Hematoma: a CENTER-TBI study.  
*Under review*

**Van Essen TA**,<sup>†</sup> Hoogslag VDN,<sup>†</sup> Dijkman MD, et al. A multicentre retrospective cohort study on health-related quality of life after traumatic acute subdural haematoma: does cranial laterality affect long-term recovery?  
*BMC Neurol.* 2022 Aug 1;22(1):287.  
<sup>†</sup> *Equal contribution*

Åkerlund CAI, Holst A, ..., **Van Essen TA**, et al. Clustering identifies endotypes of traumatic brain injury in an intensive care cohort: a CENTER-TBI study. *Crit Care*. 2022 Jul 27;26(1):228.

Van der Vlegel M, Mikolić A, ..., **Van Essen TA**, et al. Health care utilization and outcomes in older adults after Traumatic Brain Injury: A CENTER-TBI study. *Injury*. 2022 Aug;53(8):2774-2782.

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<sup>†</sup> Equal contribution

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**Van Essen TA**, van Gent JAN, Bos MHA, et al. Coagulopathy after hemorrhagic traumatic brain injury, an observational study of the incidence and prognosis.

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*J Neurotrauma.* 2017 Feb 15;34(4):881-889.

**Van Essen TA**, Van Rijswijk JB. 'Intranasal toothache': case report.  
*J Laryngol Otol.* 2013 Mar;127(3):321-2.

**Van Essen TA**, Van der Giessen RS, Koekkoek SK, et al. Anti-malaria drug mefloquine induces motor learning deficits in humans.  
*Front Neurosci.* 2010 Nov 19;4:191.

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## **PRESENTATIONS**

### *Invited*

#### **Effectiveness of surgery in acute subdural hematoma - Henk Verbiest price 2022**

Plenary presentation, Wintermeeting 2022, November 25, *Nederlandse Vereniging voor Neurochirurgie* (NVvN, yearly scientific meeting of the Dutch Neurosurgical Society) Rotterdam, The Netherlands

#### **Clustering of ICU treatment strategies in traumatic brain injury.**

Presentation, European Association of Neurological Societies (EANS) 2022, 19 October, Belgrade, Serbia

#### **Surgical practice variation in traumatic acute subdural hematoma.**

European Society of Intensive Medicine/EANS 2022, 16 October, Belgrade, Serbia

#### **Evidence of surgical evacuation in traumatic acute subdural hematoma**

INTS (International Neurotrauma Society) 2022, 19 August, Berlin, Germany

#### **TBI in the elderly; Randomized Evaluation of Surgery in Elderly with Traumatic Acute SubDural Hematoma (RESET-ASDH trial)**

EANS webinar, 25 May 2022

#### **Comparative effectiveness research – a case study in acute subdural hematoma**

EANS webinar, 28 April 2021

#### **Variation in neurosurgical management of traumatic brain injury**

Nordic Neurotrauma Conference 2019, 19 November, Lund, Sweden

#### **Effectiviteit van chirurgie voor het traumatisch acuut subduraal hematoom**

Hoelendag 2018, The Hague, The Netherlands

### *Other*

#### **Comparative effectiveness of surgery in traumatic acute subdural hematoma.**

Presentation, EANS 2022, 18 October, Belgrade, Serbia

**Comparative effectiveness of surgery in traumatic acute subdural hematoma**

Plenary presentation, INTS (International Neurotrauma Society) 2022 Berlin, 19 August 2022, Berlin, Germany

**Functional outcome after surgical or conservative treatment of acute subdural hematoma: a living systematic review**

Presentation, EANS 2019, 17 September, Dublin, Ireland

**Randomized Evaluation of Surgery in Elderly with a Traumatic Acute Subdural Hematoma (RESET-ASDH): protocol of a pragmatic randomized controlled trial**

Poster presentation, EANS 2019, Dublin, Ireland

**The Dutch Neurotraumatology Quality Registry**

Poster presentation, INTS 2018, Toronto, Canada

**Variation in neurosurgical management of traumatic brain injury: a survey in 68 centers participating in the CENTER-TBI study**

Poster presentation, INTS 2018, Toronto, Canada

**Comparative effectiveness of surgery for traumatic acute subdural hematoma in an aging population**

Plenary presentation, INTS 2016, 3 February, Capetown, South-Africa.

**The mortality reduction of acute surgery in traumatic acute subdural hematoma since the 19th century: systematic review and meta-analysis with dramatic effect - is surgery the obvious parachute?**

Poster presentation, INTS 2016, Capetown, South-Africa.

**Comparative effectiveness of surgery in traumatic acute subdural and intracerebral hematoma: study protocol for an observational study**

Presentation, International Brain Injury Association (IBIA) 2016, 2 March 2016, The Hague, The Netherlands

**Factors of influence on surgical decision making for traumatic acute subdural hematoma**

Plenary presentation, INTS 2014, Budapest, Hungary

**Treatment variation for traumatic acute subdural hematoma**

Poster presentation, INTS 2014, Budapest, Hungary

***‘Wel of niet opereren bij het traumatisch acuut subduraal hematoom?’***

Plenary presentation, Wintermeeting 2014 NVvN Utrecht, The Netherlands

**Factors of influence on surgical decision making for traumatic acute subdural hematoma**

Poster presentation, Medical Center Haaglanden conference 2013, The Hague, The Netherlands

**Treatment variation for traumatic acute subdural hematoma**

Poster presentation, Medical Center Haaglanden conference 2013, The Hague, The Netherlands

**NON-REFEREED ARTICLES AND PUBLIC (NEWS)ITEMS**

***Federatie Medisch Specialisten (Dutch federation of medical specialists) press release: nomination Wetenschaps- en innovatieprijs 2023 (Science and Innovation prize 2023) on behalf of the NVvN.***

2 March 2023

<https://demedischspecialist.nl/voordracht-2023-neurochirurgie>

**Leiden University Medical Center (LUMC) press release: ‘*Spoedoperatie bij bloeding onder hersenvlies onderzocht*’**

6 May 2022

<https://www.lumc.nl/over-het-lumc/nieuws/2022/Mei/spoedoperatie-bij-bloeding-niet-altijd-nodig/>

**News item ‘*Spoedoperatie bij bloeding onder hersenvlies soms overbodig*’**

Article, *Medisch Contact*, Number 20, 19 May 2022

*Medisch Contact* online press release: ‘*Spoedoperatie bij bloeding onder hersenvlies soms overbodig*’

10 May 2022

<https://www.medischcontact.nl/nieuws/laatste-nieuws/nieuwsartikel/spoedoperatie-bij-bloeding-onder-hersenvlies-soms-overbodig.htm>

Van Essen TA, Peul WC. Current evidence base for neurosurgery in traumatic brain injury.

*Course book. Biemond course for residents neurology, July 2020.*



**Dutch newspaper *De Volkskrant* article, Ellen de Visser: ‘Die Ene Patient’, “Lange tijd had ik een rubberen ziel, dankzij Pieter ben ik empathischer geworden.”**

9 September 2017

<https://www.volkskrant.nl/wetenschap/lange-tijd-had-ik-een-rubberen-ziel-dankzij-pieter-ben-ik-empathischer-geworden~bbbcef19/>

**LUMC press release: ‘Welke behandeling is het best bij hersenletsel?’ 2015**

<https://www.lumc.nl/org/sips/onderzoeken/lopende-onderzoeken/CENTER-TBlenNet-QuRe>

**Conference of the University Neurosurgical Center Holland: ‘Neurotrauma in de regio’**

28 June 2015

**PROSPERO International prospective register of systematic reviews:** Systematic review and meta-analysis of the treatment in traumatic acute subdural hematoma in terms of 1) mortality and 2) functional outcome. PROSPERO registration numbers CRD42015025491 and CRD42019125336.

## **GRANTS AND AWARDS**

Nomination *Wetenschaps- en innovatieprijs 2023* (Science and Innovation prize 2023) of the *Federatie Medisch Specialisten* (Dutch federation of medical specialists)

2 March 2023

Niels Stensen fellow 2023, 58.000 euro

Henk Verbiest prize 2022, NVvN 1250 euro

Co-applicant Randomized Evaluation of Surgery in Elderly with Traumatic Acute Subdural Hematomas (RESET-ASDH), 2020, The Netherlands Organisation for Health Research and Development (Benefit, ZonMW), 1.800.000 euro

Co-applicant ‘Complement Inhibition: Attacking Overshooting inflammation @ fter Traumatic Brain Injury (CIAO-TBI)’, 2020, De Hersenstichting, (Dutch Brain Foundation) and Takeda Pharmaceutical Company, 900.000 euro

Personal scholarship within the FP7 program, 2019, European Union, 8000 euro

Co-applicant 'Program Grant TBI', 2014, for NeuroTraumatology Quality Registry (Net-QuRe), *De Hersenstichting* (Dutch Brain Foundation), 600.000 euro

Travel award International Neurotrauma Society 2014, Budapest, Hungary, 1500 euro

## CURRICULUM VITAE

Thomas van Essen was born on July 29, 1985 in Rotterdam, The Netherlands. He obtained his high school Gymnasium diploma at the *Erasmiaans Gymnasium* in Rotterdam in June 2003. In September he started the study Applied Physics at the Technical University Delft where he successfully concluded his propaedeutic exam. During the bachelor program in Delft he started the master of science program Neuroscience at the Erasmus University Rotterdam. It was here that, despite his affinity with physics, he decided to pursue a different career. Therefore, in August 2005 he entered medical school at the Erasmus University. In July 2012 he received his medical degree (cum laude) and his Master of Science in neuroscience at the department of Neuroscience (under the supervision of dr. De Jeu and Prof. De Zeeuw). During his studies he successfully competed at an international level of crew rowing until 2009, after which he played football at an amateur - but highly ambitious - level.

A scientific internship for his bachelor thesis at the University of California Davis (prof. Muizelaar) sowed the seed of his interest in acute neurosurgery and related research. Therefore, in November 2012 he started as a resident neurosurgery not in training at Haaglanden Medical Center and Leiden University Medical Center (dr. Nandoe Tewarie, dr. Walchenbach, dr. Koot and prof. Peul). At the job interview he put forward the research questions of this thesis, after which he successfully applied for a grant of the Dutch Brain Foundation (*Hersenstichting Nederland*).

In July 2014 he started as a PhD graduate neurosurgery and epidemiology (prof. Peul and prof. Rosendaal). He received a personal scholarship within the FP7 program (European Union, 2019). Thomas presented his research at several (inter)national meetings. He was invited to give a plenary lecture on the effectiveness of acute surgery in acute subdural hematoma at the biennial International Neurotrauma Society Berlin meeting. Furthermore, he won the annual Henk Verbiest prize of the Dutch Neurosurgical Society for best article in 2022, and his study was nominated for the *Wetenschaps- en innovatieprijs 2023* (Science and Innovation prize 2023) of the *Federatie Medisch Specialisten* (Dutch federation of medical specialists).

In March 2016, Thomas started his neurosurgical training that he finished in October 2022. He was awarded a personal grant (Niels Stensen Fellowship) to pursue experience at a top university or institute abroad. In 2023 he started as an Honorary Fellow at the Division of Neurosurgery of the University of Cambridge (prof. Hutchinson) to work as a neurosurgeon and post-doc researcher. In addition, he worked at the Department of Neurological Surgery of the University of California San Francisco (prof. Manley) as a visiting fellow from November 2022 until February

2023. Both fellowships have the scientific aim to study treatment effect heterogeneity of surgery in traumatic brain injury.

These fellowships will be followed by a fellowship functional neurosurgery at Dalhousie University (dr. Weise and prof. Clarke, Halifax, Nova Scotia, Canada).

Thomas lives together with Chrisje den Besten, their 2-year-old son Philip and their newborn son Floris.



Den Haag, Leiden  
2023